# BIBLIOGRAPHICAL NOTICES.

ART. XI.—*Medical Botany; or, Descriptions of the more important Plants used in Medicine, with their history, properties and mode of administration.* By R. EGLESFELD GRIFFITH, M. D., &c. &c. With upwards of three hundred illustrations. 1 vol. 8vo. pp. 704: Lea & Blanchard, 1847.

IF credit can be claimed for American physicians, it well may be for their zeal in exploring the native sources of medicinal articles. At the time of the early settlement of our country, this seems to have been a prominent object with practitioners, originating partly from necessity and partly from a love for science, and a wish for its extension, fostered by the visitations of European naturalists. The desire to discover medicinal agents originated under circumstances to be found on record in the history of the colonies of North America. Their isolation, the difficult and infrequent intercourse with the rest of the world, the little wealth possessed to command exotic and expensive articles, together (in many instances) with a free and confiding association with aborigines, who had a knowledge, to a limited extent, of some native products, all conduced to direct attention to our Indigenous Materia Medica. In addition, a revolutionary struggle of long duration, after the difficulties alluded to were in a measure removed, threw physicians again upon their resources, to experiment anew, with the effect of confirming discoveries, and extending their knowledge.

What at first assumed the form of a crude, ill digested collection of facts, has gradually changed its character to that of an elaborate scientific exposition, and cherished be the memory of the enlightened and distinguished individuals, long since passed away, who kept alive the spirit of research in its infancy, and transmitted it to their successors. In a notice like the present, it is not permitted us to enter upon such minute details, as to give to each one the exact amount of credit due him for the good service performed in these endeavours to benefit the cause of science and humanity. By one in particular, however, a high degree of encomium is merited; the wreath he wore was not wrought of foreign bays, but of our own native plants: we allude to the late Prof. Barton, who contributed much by his own researches, and more still by infusing a spirit of investigation into numerous pupils, in advancing this department of medicine. Lest the results obtained by the cultivation of the Indigenous Materia Medica may not have been sufficiently considered, or their importance estimated correctly, we conceive that the presentation of a few facts in connection with the subject may be of service and perhaps interesting.

In the *primary list* of the U. S. Pharmacopœia, *one hundred and sixty-three* articles, derived from vegetables, are enumerated, of which 38 appertain to this country. 61 are found in Europe, 12 in South America, 1 only is peculiar to Mexico, 37 are produced in Asia, 10 are derived from the West Indies, and 4 from Africa. The proportion of native products is somewhat short of *one-fourth*, and if to these be added 46 which are common to this country and Europe, the resources within our borders amount to more than half of the list, and with some effort the remainder might be added. Again, if we take the products of South America and the West Indies in connexion, *two-thirds* of the whole catalogue will be found to appertain to the New World.

Of the same class of substances contained in the *secondary list*, *ninety-six* are enumerated, of which 69 are strictly North American, 22 European, 2 procured from Asia, 1 from the West Indies, and 2 from South America; 20 of the European are also common to the United States, so that only one-twenty-fourth can be regarded as exotics.

Now if we take the proportion of the two lists united, two-fifths are native products, and when to these are added the articles in common, four-fifths of the whole Materia Medica will be found to be obtainable within our boundaries. We have taken the catalogue of the Pharmacopœia as the basis of our estimate, because most convenient. It is limited, however, and had a new one been formed with more trouble than could be at present bestowed upon it, the proportion of indigenous plants would have been augmented. There are products employed with efficacy in every portion of the United States, known only within a local sphere, which might well have been added. If numbers, then, constitute an argument in favour of the importance of our native articles, they are sufficient.

But let us look into the character of these resourses, and it will be found that they cover a large part of the ground laid out by therapeutists. Some of them are peculiar in their operation and unsurpassed, others again afford excellent substitutes for the imported medicines, if they are not even superior. The demonstration is clear that much has been accomplished in this department, and yet a vast field is open for exploration. With a country extending from the Atlantic to the Pacific, from the 49th parallel of north latitude to the torrid zone, who can predict the future advance of discovery?

Independently of the question with respect to what we may now, or hereafter, possess inherently, another arises as to how far exotic products of importance, not yet introduced, may be naturalized. If the possession of every variety of climate, elevation and soil can conduce to this end, never were greater advantages presented to any people. With increasing facilities for transportation, the productions of foreign climes, in the most favourable condition for vegetation, may to a greater extent be made our own, and thus in a measure relieve us of the burden under which we are now labouring, the importation of the most worthless trash in the form of drugs, followed by a drain upon our wealth, a temptation to cupidity, and an annual sacrifice of life.

We have commenced our notice of a work on medical botany with these reflections, because they are pertinent to the subject, and because its appearance is a harbinger of a renewed interest in it. It may be looked upon as a sign of the times—a promise of good hereafter. There are two classes of individuals who are desirous of information, the one constituted of mere tyros, the other of more advanced and to a certain extent practical botanists. The first searches for elementary details, for expositions of systems, and for technically descriptive accounts of plants, with their affinities and relations in a chemical and medicinal point of view; the second desires to extend his researches, to renew his recollections, and to obtain hints for his guidance, as well as to possess the means of speedy reference. Of elementary treatises there are an abundance, but few whose teachings are predicated on medicinal plants—none, indeed, in this country. The student must, therefore, devote himself to general botany, before he can attain to sufficient knowledge to understand medical. Amidst the pressure of studies, this method is not frequently pursued, and the time and opportunity are lost which might have been advantageously improved when studying Materia Medica. Again, the works containing specific accounts of medicinal plants, with notices of, or reference to the labours of those who have elucidated the subject by their researches and discoveries, in fact such as embody the whole learning of it, are either in the form of Medical Floras, of foreign origin, in several languages, or the ordinary dispensatories and treatises on the Materia Medica. The former must be imported, and the latter are not sufficiently comprehensive, as the botanical details have been written merely to complete the history of the articles contained in them. The American medical botanist has had heretofore no exclusive hand-book. To answer the purpose of both classes has the present work been elaborated. It has been written with a unity of purpose, the advancement of the department of science to which it is devoted, and fills a hiatus in our scientific literature. The divisions are such as are suited to elucidate the topics to be considered, and we shall examine them in succession.

The *Introduction* is devoted to the *Anatomy* of plants, including vegetable tissues, organs of nutrition, and organs of reproduction; to *Vegetable Physiology*, including the propagation of plants, their nutrition, and fecundation; to *Vegetable Chemistry*, to the *Classification* of plants, to *Pharmaceutic Botany*, and to the *Collection* and preservation of plants.

As in the study of the animal system, anatomy is the groundwork of our knowledge, so is it in the vegetable. Beginning with simple formative structure, an advance must be made to more complex. Minuteness of research in this particular is necessary to a comprehension of facts, which without it would be incomprehensible. A simple primary structure, runs through all the organs, whether of nutrition or reproduction, and all the forms they assume are so many shapes into which it can be moulded; but more than this, life is connected with it, and all vegetative vital phenomena, the laws of growth, change and decay, as well as the generation of peculiar principles by the assimilation and reactions of external agents, originate with it. Classification is inseparable from it, and frequently it is a guide to useful applications. A sufficient exposition of vegetable tissues has been given by the author, which, by the aid of the numerous well executed illustrations, must strongly impress the reader. The same may be said of his chapters on organs of *nutrition* and reproduction.

A question now arises, of what use is the information contained in such chapters to the physician or pharmaceutist, will it assist him in the prosecution of his vocation, or is it merely an introduction to some other knowledge having this end in view? The answer at once is, this very knowledge is at the foundation of all his studies. The medicines in which he deals are constituted of these very forms. both of nutrition and reproduction; his roots, barks, buds, stems, leaves, flowers, fruits and seeds are organic structures, endowed with properties of healing value. To become familiar with them entails a comprehension of their resemblances and differences, and he is most skilful whose minuteness of organic details is greatest. The physical and sensible properties which are relied on for discrimination are due to organization. A fibrous root may not be mistaken for a tuberculated one, but one that is tuberculated may be for another, as in the case of jalap and mechoacan. To the adept the structure would at once reveal the difference. What constitutes the value of some heart woods over sap woods, but structure? and in what resides the difference but the changes this structure has undergone? How are dried stems selected which, when plucked, were young, soft and pliant, as dulcamara, but from the appearance of their formation, dependent on the proportion of their structural elements? The forms and characters of the organs of plants employed in medicine are equally important with their structure. It is necessary that he who employs or deals in them should not be liable to error; substitutions and adulterations are too common not to render a knowledge of them essential. We would not desire a better argument than one derived from the blunders of those whose business it is to be better informed. Practical skill, from frequent inspection and handling, may do for a mere buyer and seller: but even he is betrayed into error, and an application for assistance to the scientific cultivator of his business is constantly occurring. To be ignorant of the distinguishing characteristics of medicinal articles, and what issues from a familiarity with them, an appreciation of their value for the purposes to which they are to be put, is as reprehensible, as ignorance, on the part of the mechanic and artificer, of the materials out of which he fabricates his wares and articles. We hope the day is not far distant when this opprobrium will be removed from medicine.

The chapter on Vegetable Physiology is a good exposition of what is known upon the propagation of plants, their germination, modes of nutrition, and fecundation. This is a beautiful theme, sufficiently interesting in itself, to attract the least inquiring, but it has its practical application. The modes of growth, the changes that occur, and transformations that take place, the modifying circumstances of time, season, soil, and it may be added cultivation, are all of importance, in as much as they influence the activity of drugs. Valerian is an instance of the changes from physical causes, and hyoscyamus from duration; there is, however, no dearth of examples. Intimately associated with the physiology of plants, is vegetable chemistry. The principles revealed by it, are those upon which all the substances employed are dependent for their efficacy; they are the nutritious or perturbatory agents in vegetable structure, varying at different times, and from a vast number of circumstances. To procure them in a perfect state is a desideratum. Fibrine, albumen, legumin, the alkaloids, starch, sugar, &c., all are to be studied as products of a vegetative process, over which chemistry presides.

In this respect, science in the hands of Liebig, Berzelius, Henry, Brandes, Pelletier, Caventou, and others, has made giant strides. The contents of these chapters should be completely mastered, as they afford a good introduction to more extended research.

We come now to Classification. This, as is known to every one, is the basis of systematic Botany. It may be called its expression, as from it are we enabled to give to particular plants an individuality. From species to genera, from genera to orders, and from orders to classes, a unity of plan is traced in nature, which without it would be chaos. With more or less success, have arrangements of plants been made, since they constituted the objects of inquiry. All, however, have given place to the two modes of classification now adopted, the *artificial* and *natural;* both have their advantage and defects, but for the purpose of the student of the Materia Medica, we conceive that the latter is preferable. The sketch which is given of the Linnæan system by our author is full. It may be consulted at a glance, and as it is founded on palpable organs in most cases, in searching to identify plants, is most acceptable to the student. The natural system is more complicated. Linnæus had a set of families, but it was more theoretical than founded in nature. Jussieu first worked out the problem, and gave an elaborate arrangement to the world, founded on the association of characters. This has since been modified by De Candolle and Lindley. The beauty of this mode is the entire separation of the divisions, by structural characteristics, which are not mutable, but which are found under all circumstances. Their manner of association also, is in accordance with a fixed order, so that when a certain set of them are present, we may look for all the others. Thus the union of vascular and cellular tissue is linked with the *production* of flowers and seeds; the cellular alone with spores; hence we have *Phænogamia* and *Cryptogamia,* and synonymous with them, are Cotyledonous and Acotyledonous. The first of these divisions is again separable into such as are formed by external growth, and such as have an internal deposit, each with a peculiar structural arrangement of the primary tissues, hence, the specification of *Exogens* and *Endogens.* The first of these is possessed of two seed lobes, and hence the synonym of *Dicotyledonous,* while the second having but one, are termed *Monocotyledonous.* Between these two Dr. Griffith has placed a division of plants with naked seeds, to which is given the title of *Gymnogens,* but as they have two cotyledons, and are exogenous in their growth, they may be regarded as belonging to the former. An exception exists in the case of what are termed *Sporogens,* which are anomalous.

Again, cellular tissue alone is connected with the existence of flowerless plants, or *Cryptogamia,* which have been divided into *Acrogens* and *Thalogens.*

In touching upon this classification we have but one object in view, and that is the interest it possesses in a pharmaceutical point of view, for in accordance with it, may products be arranged. The larger number of plants are Dicotyledonous, and from them are obtained as a consequence the valuable barks, woods, fruits, and more elaborate products; a smaller number are Monocotyledonous, and from them are fewer articles, mostly nutritious. The Cryptogamia includes but few medicines. Upon descending to the *orders* or *families* we may look for the alliances or affinities which constitute the value of what, by our author is termed "Pharmaceutic Botany." We cannot do better than quote what we have said in our notice of Royle's *Materia Medica* in the *Journ. of Pharmacy,* as it contains the whole gist of the matter. "The great reformer of Botany, Linnæus, made an effort to arrange the Materia Medica upon this plan (botanical affinities), and his essay was conclusive as to its feasibility. Similar ideas had been entertained, as for instance by Comerarius, but the knowledge was wanting for its successful development. The natural system of Jussieu presented an admirable opportunity of engrafting upon it the most natural classification of vegetable substances, employed in medicine, and of exhibiting, that similarity of products and virtue are so closely allied to structure and organization, as to be inseparable. The eminent expounder of this system, De Candolle, has fully accomplished the task, and if not the originator of the arrangement, most undoubtedly possesses the merit of carrying it out with so much perspicuity and convincing detail, as to have established its superiority. His "*Essay on the Medical Properties of Plants*" is only one of many philosophic works, equally stamped with truth and reason, emanating from his pen; and every pharmaceutist should be familiar with its principles. In this system, chemistry is the handmaid of botany, and advanced as the former branch has been since the year 1816, when the second edition of his essay was published, the light of experiment and research have only further confirmed his labours. This the author lived to see and to enjoy. Let us take one or two examples as illustrative of the statement that has been made. The *Solaneæ* of Jussieu, or *Leuridæ* of Linnæus, presented a marked resemblance in botanical characters, so as to lead to their being grouped in a family; the family likeness being strong, the family traits were equally striking, each possessing deleterious properties. This was as far as De Candolle could trace the resemblance, but chemistry has exhibited that the bond is further cemented, by the discovery of an alkaloid principle in most of the articles, which discovery was fore-shadowed to Vauquelin, with respect to belladonna, when he stated that the deleterious principle of this plant is "a bitter and nauseous matter, soluble in spirits of wine, forming with tannin an insoluble combination, and furnishing ammonia from its decomposition by fire." We cannot enlarge upon this, to us, most attractive topic, illustrations can be borrowed from all the classes. But what can be said of the exceptions? Here and there an unruly member of a family occurs, which does not in disposition resemble the family, however much it does in appearance and habit. We are not disposed to disparage the system on this account, as exceptions must occur to every rule, and where they do occur, they serve, when fully understood, to render it more marked by their contrast.

The account of Medical Botany proper, that is, the descriptive portion of the work, is commenced by a general outline of the divisions, orders, &c. The orders have been arranged in groups, a novel feature in a medical work. They have been derived from Gray and Lindley, and modified by the author. Thus for example, Group I. is called *Polycarpicales.* It includes *Ranunculaceæ, Magnoliaceæ, and Anonaceæ.* This arrangement is founded on the ovaries, and may answer a good end, certainly one of reference.

In the descriptive portion of his work, the author has given a succinct account of each species affording medicines which have been used; and a more or less complete description of the congeners which resemble it. It contains a greater number of descriptions than any book we are familiar with, together with information not usually found in print, or else diffused through an immense amount of reading, which has been laid up in the storehouse of his memory, and here poured forth for the edification of the reader. An account of the mode of operation, uses, and modes of exhibition is appended to the several articles. We cannot conclude this notice without expressing our opinion that this work is an exceedingly valuable contribution to the department of medicine of which it treats, and since a movement has been made, on the part of the recent Medical Convention, to awaken the attention of physicians to the value and extent of the Indigenous Matera Medica, must do good service in promoting this object. It should be "read, marked, learned, and inwardly digested," by every student, that the reproach may be put aside, that the science of botany, which has done so much to furnish the materials for success in the practice of medicine, is neglected as a useless part of professional education.

J. C.

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Art. XII.—*On the Pathology and Treatment of Scrofula; being the Fothergillian Prize Essay for* 1846. By Robert Mortimer Glover, M. D., Corresponding Member of the Medical Society of London, Lecturer on Materia Medica in the Newcastle Medical School. "*Hypotheses non fingo*"—Newtoni Principia. London, 1846: 8vo. pp. 315, with four plates.

This is a work of very considerable research. There are few of the more prominent authorities in relation to the disease of which it treats whose observations and opinions are not referred to, and often quoted at great length. Indeed, the frequency with which the author indulges in quotation, and the numerous references with which his essay is loaded, render it a somewhat tiresome one to read. Though we view it as a very valuable contribution, calculated to improve very materially our acquaintance with the general pathology of scrofula, we cannot concede to Dr. Glover much credit for the manner in which he has arranged his materials, or the care with which he has collated and digested them. In relation to almost every point calculated to throw light upon the true character of scrofula, the work before us is far more full and satisfactory than the contemporaneous one of Dr. Phillips on the same subject (*see our number for July,* 1846, p. 149); while on all that relates to the etiology of the disease it falls far below it in the positiveness and fullness of its information. This is the more to be regretted, inasmuch as we feel confident that, with all his accuracy and research, Dr. Phillips has been led into more than one error by drawing a positive distinction between external scrofula and the tuberculous affections generally.

Dr. Glover adopts in its fullest extent the statement of Lugol, which makes scrofula, that is, the actual process of disease, to be always revealed by the development of tubercles; and hence he employs the term tubercle or tuberculous matter as including all scrofulous formations, in whatever organ or tissue of the body they may be seated. He distinguishes the scrofulous matter by its microscopic characters, its certain, not very definite chemical constitution, and its physical structure apparent to the eye, and which is well known; these characters, taken altogether, after the manner of the method of natural families in classifications of natural history, appear to him to be sufficient, as they can be described, to separate as accurately as can be done in any natural study, the scrofulous formations from all others. A number of authorities are adduced to show the identity of tuberculous matter in whatever organ or texture it is met with, and that all the forms of tubercle which occur in the different organs are produced chiefly by mechanical causes, and differ very slightly in a physiological sense, never in their more minute anatomy.

In regard to the vascularity or non-vascularity of tubercle and the degree of its organization, Dr. Glover adduces the facts recorded by various writers and the results of his own observations—and then remarks—

"These facts and observations, taken together, lead to the conclusion of the vascularity of tubercle being a non-essential phenomenon. The obliteration of the vessels of the tissue into which the scrofulous or tubercular matter is effused, may be carried to a greater or less extent; the inflammatory action produced by the presence of the tubercle on the surrounding tissues may, in some instances, cause obstruction of the vessels, or, in an earlier stage, increased vascularity; the envelopes which are formed around the tubercular mass may be more or less vascular, or totally devoid of vessels; but tubercle matter itself is *beyond the normal influence of the circulation,* and this fact is confirmed by the results of microscopic examination."

The author enters next into an examination of the microscopic structure of tubercle and the chemical composition of scrofulous products.

The subject of the intimate structure of tubercular matter is intimately connected with the question of its organization. Most microscopic observers of late years, with some exceptions, having detected cells in tubercles, have concluded therefore that they are organized, inasmuch as it is to be inferred, in the present state of our knowledge, that the existence of nucleated cells is an essential element of organization. In opposition to this opinion of the organization of tubercular matter Dr. Glover adduces the conclusions of Canstatt, whose work he conceives to give perhaps the best representation of the present state of the question. The views, also, of the most distinguished writers on the subject of the intimate structure of tubercle are presented as introductory to the results of the author's own observations. These observations were made with powers of four hundred, and six hundred and ten diameters, and on tubercles from the lungs, heart, spleen, renal capsules, kidneys, and bladder, and on tuberculated mesenteric, bronchial, and cervical glands.

"The ordinary element of tubercle present in all the forms which we have examined," Dr. G. states, "and scarcely different in one situation from what it is in another, is the granular corpuscle described by several writers. Many tubercular masses are composed almost entirely of this matter, which varies in size from about the bulk of a blood-globule to about, perhaps, the 1-10,000th of an inch in diameter. These corpuscles are generally of a somewhat yellowish colour, and when magnified by the highest power which we have used (610 diameters) show occasionally spots in their substance which may possibly in some cases be nuclei. Mixed with these, which we believe to, be in some instances, altered cells, in other cases, new formations, we have the following elements:—

"*1st.* Epithelial scales, variously altered, observed in lung tubercle, which are shown in one of the drawings taken from a specimen of miliary tubercle.

"*2d.* Fat globules.

"*3d.* Crystals of salts, of which some specimens are exhibited in one of the figures of the microscopic drawings.

"*4th.* Portions of the destroyed tissues, which sometimes assume singular shapes.

"*5th.* Cells which also appear to belong to the old tissues; of these there is a specimen taken from tubercles of the heart in fig. 7, and fig. 12 of Scherer's plate probably represents similar cells.

"*6th.* Large granular and corpuscular masses of the most irregular forms.

"The corpuscular granules which constitute the essential elements are shown in fig. 5, magnified 400 diameters, and again in fig. 6, magnified 610 diameters, and still larger than they appear under the microscope, so as to elucidate our view that, in some instances, these granules may arise from an error of nutrition, whereby nucleated cells become converted into thickened and semi-opaque bodies. Besides the various kinds of corpuscles, we find in tubercles a countless number of granules of very small size.

"In tubercles from various seats, then, we can discover no essential difference in constitution, and a marked discrepancy exists between cellular and fibrous growths arising from normal inflammation on the one hand, and tubercle; and again, between this formation and the various parasitic growths on the other hand."

Dr. G. has not been able to discover any essential difference between the microscopic structure of infiltrated tubercle and that of ordinary tubercle already described. The structure of infiltrated tubercle consists of irregular corpuscules and granules, some epithelial scales mixed with a few exudation corpuscules, and a great number of minute molecules.

A very full account is given of the results of the chemical analysis of tubercular matter by Lombard, Hecht, Preuss, Güterboch, Scharlau, Simon, Schönlein, L'Héritier, Boudet, Scherer, and Wright, followed by the details of the several analyses performed by Dr. Glover himself; from which latter the following general conclusions are drawn:—

"*1st.* The results of the chemical analysis of tubercle, and its after products, of scrofulous bones, &c., although they may not as yet warrant very decisive conclusions, yet furnish some useful information, which will be found to bear upon the pathological propositions advanced concerning the essential nature of scrofulous and tubercular affections. Thus the large quantity of fat and extractive matters in tubercle, has a direct bearing upon the theory supported by many of the advocates of the use of cod-liver oil in the treatment of these diseases. The existence of pyin is important, and could we be sure of that of casein in quantity, we might, to a certain extent, explain the unorganizability of tubercles. But we have never been able to satisfy ourselves that the protein constituent of tubercle, as examined by us, approaches much nearer to casein than to albumen. Nevertheless, the researches of Preuss, Boudet, Scherer, and others, must be held decisive of the existence, at least in some cases, of casein; although the last named observer is far from confirming former writers in the statement of a large proportion of tubercle matter being composed of this substance. We have made other examinations for casein than those recorded, and have never been able to detect its presence. Whoever considers the very doubtful power of the tests which we possess, for distinguishing these different substances in the animal body, will be very doubtful of the precise nature of the protein basis of tubercle. Nevertheless, we may perhaps conclude that there is great probability of this protein compound having a certain approach to casein, or at least of a portion of it exhibiting a tendency to take on characters of this latter substance.

"*2d.* The ultimate analyses which have been made can lead to no very definite conclusion, although Scherer infers from a comparison of his formulas of lung and liver tubercle, that the difference which exists between them may arise from the substance in the latter situation being less exposed to the air. Thus he says, making the azote the fixed quantity, we have—

The lung tubercle—$C_{43}H_{70}N_{12}O_{13}$.
The liver tubercle—$C_{45}H_{72}N_{12}O_{13}$.

showing an excess of carbon and hydrogen.

"Our analyses would give to the protein compound of tubercle a much smaller per centage of azote in general than those of Scherer; only 12.31 in the first analysis of mesenteric tubercle, while the proportions of carbon and hydrogen show that the substance had been completely freed from fat.

"3*d*. The analysis of the concretions which we have made, does not bear out in the least the statement of M. Boudet, which makes these bodies contain 70 per cent. of soluble salts. On the contrary, even in the tubercle, which may be supposed to form a transition stage on the way towards the conversion into the calcareous substance, we find only about one-third of the ash composed of soluble salts: and in the perfect concretion there was merely a fraction of these substances. In this respect our results agree with those of Scherer and Mulder. A doubt has arisen, whether these concretions should be regarded as the remains of absorbed tubercle, and this doubt is supported by Rayer, who maintains them to be oftener the residue of pus. The presence of these concretions may not improbably serve to attract towards them, once formed, mere osseous matter.

"4*th*. The analysis of scrofulous bones requires no comment.

"5*th*. Scrofulous pus appears to differ from ordinary pus, chiefly in the fluid part being thinner and mixed with albuminous granules proceeding from a decomposition of scrofulous or tuberculous matter. The pus globules appear also, as stated by Mr. Gulliver, to be fewer and less distinct than those of healthy pus. We have found them also more irregular in their form."

The state of the blood in scrofula is next inquired into. The statements of various writers on this point are given, and the results of the examination by the author of the blood in eighteen tuberculous patients, are presented in detail. The mean of the analysis made of the blood from six male patients, gave solids 208.05; fibrin 3.132; solids of serum 87.60; globules 117.32—rejecting a few decimals in the calculation. While the mean of the analysis made of the blood of twelve female patients, gave solids 203.845; fibrin 3.585; solids of serum 85.28; globules 114.88.

"On the whole, therefore," Dr. G. remarks, "it may be stated, as the result of these analyses, that in scrofula we have an increase in the solids of the serum, and a diminution of blood globules, which is very nearly the alteration that has been long suspected to exist. As far as the analyses go, the fats are not deficient in the blood, and however opposed this may be to certain hypothetical notions with regard to the supposed *modus operandi* of cod-liver oil, it is altogether in harmony with the results of the analyses of tubercle which we have made."

In regard to the changes in the bile, lymph, and chyle in scrofula, Dr. G. notices the idea of the disease being connected with deficient secretion of bile; the chylous digestion being supposed defective from the absence of the fatty principles of the bile; in support of which we have the fact of the frequent occurrence of fatty liver in persons who die of scrofulous disease. Le Pelletier observes, that in the autopsy of scrofulous persons he almost invariably found the bile more pale and less consistent, and less charged with resin and colouring matter, than in the ordinary state. This fact was also observed by Bordeu, and Dr. G. has also made the same observation, but was withheld from drawing any inference, inasmuch as in the state of marasmus which exists in the subjects referred to, where every secretion is in a deranged state, it affords no evidence as to the share which a deranged state of the bile may have in the production of scrofula.

"Moreover," Dr. G. adds, "the fatty state of the liver is not constant in tuberculosis, nor does, as Rayer remarks, a fatty state of the liver always produce this disease in animals, while in man, this fact is also notorious. Nevertheless, although we cannot recognize a merely deficient secretion of the fatty principles of the bile as the cause of scrofula, it is not very improbable that these states of the liver and bile are closely connected with the pathology of the disease. The fatty state of the liver being only occasionally found in scrofula, and having been particularly observed in tuberculosis of the lung (for Le Pelletier and Bordeu, in their accounts of autopsies of scrofulous persons, do not speak of a fatty state of the liver, but of a watery condition of the bile), may arise from obstructed respiration, which, even where the physical obstruction to the passage of air into the lung is not considerable, may yet result from the deficiency of blood globules, which analysis shows to exist alike in internal and in external tuberculosis; the blood-globules being the portion through which the aëration of the blood is effected."

Dr. G. believes that, notwithstanding the attempts that have been made to show an alteration in the nature of the chyle and lymph in scrofula, these alterations are entirely unknown to us. In some cases of tubercle, a tuberculous matter has been found in the lymphatics (Andral); Dr. Bulman has also noticed the same thing in a case of mesenteric disease. The notion of a peculiar acidity of the lymph, entertained by Baumes, Hufeland and others, is, of course, purely hypothetical.

Great stress has been laid upon the state of the stomachic secretions in scrofula, especially by the German writers. An excessive formation of acid is the principal derangement, and to the depraved digestion produced by this excess of acidity, a prominent part in the pathology of scrofula has been ascribed.

The analyses of Dr. G. do not show any particular affection of the urine in scrofula, unless where there is a long continued exhaustion.

All authorities and observations alike concur in indicating a deranged state of the functions of the skin as a constant concomitant of scrofula. The skin is generally hard and dry, but occasionally there is profuse sweating.

Dr. G. treats next of the scrofulous diathesis. Upon this subject his remarks present nothing particularly novel or interesting.

The ensuing chapter presents a sketch of the comparative pathology of scrofula. From this some useful inferences may be drawn in regard to the etiology of the disease in man. A more interesting inquiry is that which forms the subject of the following chapter—the identity, namely, of scrofulous and tubercular diseases. As we consider this to be one of the most important points connected with the pathology of the disease, we shall quote somewhat extensively from the general conclusions of Dr. Glover based upon the several facts and opinions advanced in relation to it.

"Many of the objections to the identity of scrofula and tubercle may be summed up as follows:—

1st. The difference of form between scrofulous formations and tubercle, the former being indeterminate and indistinctive, the latter more or less rounded, and provided with an envelope. But all this merely depends upon the structure of the tissue in which the deposit occurs. In some of the illustrations of diseased lymphatic glands appended, we have in the interior of the glands, cysts filled with scrofulous or tubercular matter, comparable to isolated tubercles.

"2d. It has been asserted, that while scrofulous glands can be injected, tubercles show no vessels in their structure. But, besides that some, as has already been shown, have distrusted the latter observation, it appears clear, that neither scrofulous matter nor tubercle is *essentially* vascular. 'All these assertions,' says Canstatt, 'are groundless; vessels are wanting to all tubercles, except what remain of the tissue in which the deposit has taken place.'

"3d. The same author observes, that tubercles may heal, as well as all the forms ascribed to scrofula, that both are curable in the same manner, and that scrofulous masses, like tubercle, are subject to pass into chalky masses and degenerate. The resemblance between the representation which we have given of a cicatrix in the lung, formed by the healing of a tuberculous abscess, (as was proved by the remains of tubercular matter imbedded in the false membrane of the cicatrix, as demonstrated by the microscope,) and the appearance of a scrofulous scar of an external part, is particularly striking.

"4th. It has been said that tubercular masses soften more easily than scrofulous tumours, but the greater sluggishness of the latter depends simply upon the slighter susceptibility of the tissue in which they are situated to irritation, while the pulmonary substance is especially liable to undergo inflammation.

"5th. Again, we have it advanced, that persons below puberty are more liable to scrofula, those of a more advanced age to phthisis, and, that those who may have the latter disease later in life, have in their youth rarely suffered from the former. (*Scharlau.*) But we have scrofula at all ages, and pulmonary tubercles have been found in the fœtus, while a very large proportion of the deaths from phthisis, occurs below the age of puberty; but all this could only show, how at one period of life the morbid deposit was directed toward the external, at anothe upon the internal parts,—or, with regard to the latter part of the argument, i might be inferred, of people in the circumstances described, that at an early period 'no occasional causes existed, by which the possibly inherited scrofulous diathesis might be brought to a further development; the childhood and boyhood passed happily over without the symptoms appearing, but at a later period, when the determination of blood to the lungs gives liability to pulmonary affections, pulmonary consumption appeared.' (*Bredow.*)

"6th. The assertion made by Scharlau, of the lymph and chyle glands being mostly sound in tuberculous affections, while in scrofula they are the chief seat of the evil, is in total contradiction to well known results. Indeed, one of th most powerful arguments in favour of the identity of scrofulous and tubercula affections, is the association of tuberculous glandular disease with phthisis, fo surely, no one can contend for a distinction between those pathological condition which respectively give rise to tubercularization of the cervical, bronchial, an mesenteric glands. According to Barthez and Rilliet, the scrofulous affection o the gland is always a tuberculization: 'but it will be said, all scrofulous patient do not present tubercles, and we see children succumb with caries, without th bones containing this accidental product, with the ganglions enlarged and not tuberculous. For our part, after having opened the corpses of a great number o scrofulous subjects at the hospital of St. Louis, and at the Children's hospital, w may affirm, that we never missed finding the tuberculous deposit.'

"Every one is acquainted with the well known law of Louis, that, above th age of puberty, tubercles never exist in any organ, without, at the same time, occurring in the lungs. Admitting a few exceptions to this law, still it must be admited to be very nearly correct. Below the age of puberty, indeed, the lungs ar more frequently exempt. Thus, out of 312 children who died of various tubercular affections, the lungs were in 47 exempt from tubercles. According to Lugol scrofulous children have always tubercles of the lung. 'The natural death,' h says, 'of scrofulous patients, takes place by the chest; one may even assert tha it does not take place otherwise.' This assertion is one of the grand generalitie in which M. Lugol so frequently indulges; nevertheless, we may extract from it certain value.

"Louis, after relating a remarkable case of tuberculization of several organs a once, says, 'The development of tubercles in the brain and cerebellum, is doubtles a less striking feature in this case, than the simultaneous existence of these bodie in a great number of various parts, the lungs, the neck, the right axilla, the mesenteric glands, the spleen, and more especially, the fact of the tuberculous matte being in the same stage of development in all these places except the lungs. really do not understand how this fact can be accounted for, unless by admittin the agency of one and the same cause, acting at one and the same time upon al these parts.—And, above all, what explanation can be advanced of the circumstance, that the tuberculous matter was in the same stage, that of crudity, in ever place where it existed, if the cause leading to its evolution be not admitted to b uniform, and to have produced its effects simultaneously.'

"7th. Scharlau, whose objections have been so often referred to, has also contended for another distinction: Scrofulous diseases, according to him, are foun in the venous and lymphatic temperaments; while phthisis is an affection of sanguine people. There is more in this objection than in those previously considered although it does not amount to much, for we find scrofula in all temperaments, an likewise phthisis. But, admitting a lymphatic temperament to be more necessar to the production of scrofula than phthisis, the explanation is to be found in the fa of the lungs having, of all organs, the greatest tendency to tuberculization, althoug this tendency may be obviated, to a certain extent, by other circumstances, as i the period of life below puberty; so that we may have a less amount of the lymphatic temperament requisite as a predisposing cause in phthisis than in scrofula.

"8th. A different state of the secretions and excretions has been assumed t exist in the two diseased states under consideration. Thus, while the urine o those affected with scrofula contains urobenzoic and oxalic acids, in phthisical patients the same fluid contains an excess of uric acid. This, of course, is al hypothetical. The formation of an acid in the stomach in scrofula has been lai down as a distinction; but children are more disposed to acidity than grown pe sons.

"9th. Schönlein says, 'The family of tubercular diseases is united with that scrofula, but by no means the same, as later writers assert.' His chief ground f making a separation, appears to be the notion of tubercles partaking of a par sitic nature. But this opinion is, as shall be afterwards shown, totally witho foundation.

"10th. Dr. Evans argues for the complete separation of the strumous and tube cular diatheses, chiefly from the circumstance, that he sees every day, numerou examples of phlyctenulæ, ophthalmia, prurigo, rickets, &c., and frequent cases lymphatic looking children with tumid upper lids, dilated pupils, swollen bellie and enlarged cervical glands, in whose parents and other relations, he could n find that consumption or decline occurred more frequently than among any othe class of persons. He has known many large families, the members of which hav been all more or less subject to scrofula in one form or another, and none of the had ever suffered from phthisis. 2dly. That upon inquiry into the early history numerous phthisical patients, he has remarkably seldom met with persons wh at any time presented the characteristics of struma. In one remarkable instanc where, out of a family of eighteen members, fourteen died of phthisis, not on ever presented symptoms of scrofula, unless acute hydrocephalus in one child coul be considered such. To the first of Dr. Evans' arguments the author replies, th he should doubt whether any one of the affections enumerated is peculiar to scro fulous children. Certain affections may approach more or less near to the strumou type; but they cannot be used in a question like this, about the degree of conne tion between true scrofula and phthisis. To the other arguments, Dr. Glover re plies, 1st, Families may be hereditarily liable to one or more forms of scrofula thus, not to multiply examples, he has had recently under his care a child, wh at the age of sixteen months, was attacked with symptoms of tabes mesenterica at the same time of life, or within a week or two of it, three brothers had bee formerly affected in the same way, and subsequently, the disease had proved fata to all of them. He likewise admits a less amount of the constitutional predis position requisite for the production of phthisis than of ordinary scrofula. 2dly The observations of Dr. Evans are contradicted by those of numerous authorities Lugol is particularly mentioned.

"Moreover," continues Dr. G., "it is so exceedingly difficult to trace the his tory of disease in families, and patients are so unwilling to admit the existence o either phthisis or scrofula in their ancestors or relations, that little dependence ca be placed upon inquiries of this kind. Among the cases of scrofula which we have observed under our own care, and that of our colleague Mr. Potter, durin the last two years, we have been able to trace the family history with some certainty in eighty cases; a connection between scrofula and phthisis could be observed, either in the same individuals or in members of the same family, in thirty-eight of these cases. But so many persons die of phthisis, that very extensive inquiries indeed, made with precautions which are very difficult to practice, would be requisite, in order to enable us to arrive at a result worthy of confidence in this way. We rest our opinion of the identity of scrofula and phthisis, on the perfect identity of the greater number of anatomical and pathological details common to these affections.

"The occurrence of scrofula in the glands of the neck, or generally in an external form, may also prevent the existence of the internal disease becoming manifest, according to the popular belief, and according, also, to the opinion of Sydenham."

In regard to the arguments of Mr. Phillips, in his recent work on scrofula, to prove the non-identity of scrofula and phthisis, Dr. G. remarks:—

"Most of his arguments are of the same nature as those already referred to and answered. He lays great stress upon the different periods of life in which deaths occur from phthisis and scrofula. We have already shown that this argument is of no weight in the sense in which it is attempted to use it. Besides, the number of deaths from scrofula in the Registrar-General's report, to which Mr. P. trusts, is no evidence of the extent to which the disease prevails. Mr. P., while noticing this objection, remarks, strangely enough, that a similar objection might be made to the inference from the number of deaths from phthisis. But the deaths from phthisis, unfortunately, *are* good evidence of the extent to which the disease prevails. Another of Mr. P.'s arguments is derived from the fact, that according to the same report, phthisis destroys an excess of females, scrofula an excess of males. There is evidence to prove that, in some situations and countries at least, scrofulous affections are common and phthisis rare; upon this, also, Mr. P. lays great stress. The conclusion at which an inquirer may arrive upon the question just discussed, must depend upon the view he takes of the relative importance of the arguments and facts brought forward on the different sides. We consider that on the one side all is clear, *pathological*, and decided, founded on facts of essential relation; while on the other side we have doubtful assumptions, and, at best, non-essential relations."

We need offer no apology for the length of the foregoing extracts; the question discussed is one of equal interest and importance.

Dr. Glover next enters upon a consideration of the essential nature of scrofula. His brief commentary upon the different hypotheses advanced upon this point, is sound and pertinent. His own opinion of the disease is, that it is "a peculiar modification of inflammation"—in which, instead of the ordinary, or, as they may be termed, the normal products of inflammatory action, other materials are produced incapable of passing into the regular cell form—which materials constitute the tuberculous or scrofulous matter. This opinion is supported by a series of arguments, which, if not absolutely conclusive, are, at least, ingenious and plausible. We have not space to attempt an exposition of them.

On the etiology of scrofula, Dr. Glover has thrown but little additional light. Its hereditary nature he considers to be placed beyond the possibility of doubt—or, at least, of that peculiar condition of the organization, which predisposes to its occurrence when exposed to any of its exciting causes. The evidence in support of the opinion which places bad air and defective ventilation among the chief of the occasional causes of scrofula, is not supported by the results of statistics; "nevertheless," Dr. G. remarks, "as there is reason to believe the blood globules to be mainly concerned in the function of respiration, it is not improbable that the want of due arterialization of the blood by a sufficiently oxygenated air, may be essentially connected with the state of the blood which exists in this disease. Could we establish such a connection, more confidence might be entertained in the theory of Baudelocque, than can be given by the statistical results hitherto published." The influence of confinement, Dr. G. would appear to believe established. The influence of humidity, he admits, the researches of Mr. Phillips have shown to be much overrated. Too much vegetable food has been enumerated as an occasional cause of the disease. The facts adduced by Mr. Phillips are conclusive as to the correctness of this position. Great stress has been laid upon the power of venereal errors, to produce scrofula.—Lugol considers onanism rather as a sign of the presence of the disease. We have no positive evidence to support either opinion.

"The diseases which have been supposed to occasion scrofula or tubercle, are chiefly inflammatory affections, common continued fevers, hooping-cough, measles, syphilis, scarlet fever, variola, and vaccination. Barthez and Rilliet have collected the best evidence on these points. The question of the connection between inflammatory affections and tubercles, has been discussed in the sixth chapter. (On the essential nature of Scrofula). According to Barthez and Rilliet, to whose work we must refer for information on the whole of this subject, variola, instead of predisposing to tubercle or scrofula, as had been conjectured, appears to prevent, while vaccination favours the development of this disease. Of 34 children who had variola or varicella, (a long time before their death,) and who had been perfectly cured of these affections, 19 died tuberculous, and 15 non-tuberculous. Of 209 children who died without having had small-pox, or in whom it was terminal and quickly fatal, 127 had tubercles, and 82 had them not. Of 208 children who had been vaccinated, 138 died tuberculous, and 70 non-tuberculous. Of 95 who had not been vaccinated, 30 were tuberculous, and 65 not so.

"6th. Variola, scarlatina, and typhoid fever, according to the observers just quoted, have a tendency to dispose tubercles to pass into the cretaceous state.

"Intermittent fever is believed by many to be opposed to the development of tubercle or scrofula; and the countries in which intermittents prevail, are asserted to be peculiarly free from tuberculous diseases; but this is doubted by others. At the recent meeting of the Italian Scientific Congress, very different opinions were avowed on the question of the antagonism of ague and tubercle; and M. Lefèvre, of Rochefort, has recently written to the Academy of Medicine to state that, in that town, where intermittents prevail, phthisis, also, is very common.

"Almost all authors, with the exception of Dr. Boyd, seem to consider that tuberculous affections are more common in women than in men. Out of 128 cases of scrofula (external tuberculosis) admitted into the new dispensary under our care, and that of our colleague Mr. Potter, from February, 1844, to February, 1846, 62 were males, and 66 females; 80 of the whole were below sixteen, and 48 above that age. One of the patients, affected with scrofula of the axillary glands, was a female, aged sixty.

"The researches which have been made on the frequency of tuberculosis at different ages, relate, almost entirely, to the internal forms of the disease. So far as scrofula is concerned, we know that it may occur at any age, and from our own experience, should be inclined to doubt, whether its frequency at different periods of life may be so different as is thought, from the relation to the number of people of different ages. It seems, however, to be sufficiently established, that those affections which are generally regarded as the signs of the scrofulous diathesis, make their appearance more commonly in early age. It is probable that the occasional causes will act more powerfully upon young persons.

"It has been considered that the spring is the season of the year at which scrofula is most apt to break out; and when scrofulous sores undergo a kind of exacerbation.

"The geographical distribution of scrofula is an interesting subject, but the data which we have, furnish us with most imperfect information; only with regard to the internal forms of tubercular diseases, is there anything like exactitude.

"Note, from Canstatt.—On the frequency of tuberculosis in different countries.—'We chiefly follow Andral in this matter. From the 60th degree of north latitude to the 50th, tuberculosis is very scarce; for in 1,000 cases of death, there are only 53 of consumption; (this appears erroneous, for scrofula is more frequent in Russia than in England; the disease in Russia affecting more the outward parts and bones; the same in Scotland, and in Iceland;) from the 50th to the 45th, the disease is more frequent. So in Vienna, of 1,000 deaths, 114 arise from consumption; in Munich, 107; in Berlin, 71; in London, 246. In Paris, the proportion is a 5th; in Marseilles, a 4th; in Philadelphia, an 8th; in Nizza, a 7th; in Genoa, a 6th; in Naples, an 8th; in Milan and Rome, a 20th; the disease is also frequent in the North American States, particularly in Boston. Consumption is said not to be scarce in Spain, Portugal, Madrid, Gibraltar, Lisbon, Azores, Malta, Greece; in the Mediterranean and Indian Archipelagos, Mauritius, and East Indies; in the West Indies, where it particularly rages among the Negroes; and on the *Western Coast* of *Africa*. This disease is more scarce, according to report, upon the *Northern Coast* of *Africa*, and in *Egypt*; in Persia; in the interior parts of North America; on the shores of the Ohio, Mississippi, and Missouri, (according to Clark;) also at the Cape of Good Hope. Does the approach to the sea exercise a beneficial or an injurious influence? For both sides authorities may be quoted, and contradictory opinions supported by matters of fact. Aboard ships, and among sailors, the disease is scarce. Nothing favours the rise of tuberculosis more than transportation from a warm to a colder climate."

Dr. Glover's exposition of the general principles of treatment in scrofula, commences with some remarks upon the importance of such hygienic and medicinal means, as shall tend to strengthen the organism, as well for the purpose of prevention as of cure. In regard to his opinion of the curative powers of the several remedies, we can only afford room for a brief statement of the general conclusions to which he has arrived from the results of his observations.

Of *Digitalis*, Dr. G. remarks:

"When we consider the powerful diuretic effects which foxglove can exert, we may easily understand how it comes to be useful in scrofulous affections; but this property is combined with so many inconveniences, as to account fully for the abandonment of this remedy, and the use of safer means which are also more efficacious."

Of *Walnut leaves*, after noticing M. Negrier's statement in regard to their curative powers, Dr. G. concludes thus:

"On a careful consideration of the evidence which he adduces in support of the virtues of the remedy, we are disposed to regard these as of a very doubtful character. The treatment was, in many of the cases, of such long duration, and the *apparent* physiological operation of the remedy so obscure, that we cannot believe it a substance of any great power. It is probably beneficial internally as a tonic, and as an astringent, when applied externally—there appears, at least, to be little doubt of the success of this remedy in the cases of scrofulous ophthalmia."

Speaking of the *Vegetable tonics*, he says—

"It is chiefly in the intervals of the *iodine treatment*, or in a case of marked debility, that we should recommend the use of these substances. We sometimes prescribe an 8 oz. mixture, containing an ounce of the concentrated infusion of gentian, with 70 or 80 minims of diluted sulphuric acid; a tablespoonful to be taken thrice a day. The combination of Columba in powder, with the saccharine carb. of iron, in particular, has appeared to be useful as a general tonic."

The utility of *Bromine* as an external application, in scrofula, the experience of Dr. Glover, and of his colleague Mr. Potter, have fully convinced them. It forms an easily prepared, elegant, and cleanly lotion; 8 or 12 minims of bromine being used to a pint, half a pint, or 8 oz. of water.

He always gives iodine in the form of the compound tincture of the London College, or a simple solution of hydriodate of potass. He commences with adults by giving 25 drops of the compound tincture, thrice a day, which he augments gradually to 30 or 40 drops, if the patient can bear it; but, in general, when the dose becomes 35 drops, nausea, pains in the stomach, and sometimes vomiting and purging are occasioned, in which case the dose is immediately reduced. When the patient can bear a good dose without the remedy disagreeing with him, in the way of its primary action, he does not find any inconvenience from its secondary symptoms; but he does not give iodine in a very cachectic habit, preferring, in such cases, the use of iodide of potassium alone, or the syrup of the iodide of iron, or cod-liver oil.

"The compound tincture of iodine, given in this way," he remarks, "improves the appetite, acts as a general tonic, and increases powerfully the quantity of urine, and also, according to our experiments, the amount of solids, and of urea."

In particular cases of gastric irritation, connected with acidity, Dr. Glover believes the *alkaline carbonates* will be found especially beneficial; he has repeatedly combined them with bitters, with good effect.

The *chloride of potassium*, Dr. G. conceives, might be given now with advantage, when the iodide is so dear. The *bromide of potassium* he considers more powerful than the chloride, less active than the iodide. Not being so apt to occasion nausea as the latter substance, it may be used in cases where this might disagree.

Dr. G. supposes the *chloride of sodium* to possess nearly the same properties as the iodide of potassium; but its action is much weaker.

In very cachectic persons, the result of Dr. G.'s observation would lead him to prefer the *syrup of the iodide of iron* to any other compound of iodine; but the properties which it possesses are rather those of the base, than of the electro-negative element. All the preparations of iron act powerfully as stimulants of the intestinal canal, and probably upon the uterus. The syrup of the iodide seems indicated especially, when in scrofula menstruation is defective. In such cases he sometimes combines the sulphate with aloes. The *bromide*, apparently, according to his results, may be used instead of the iodide.

The author suggests the conjunction of *sea bathing* and *mineral waters*, with the other means of a hygienic character, likely to prove beneficial in scrofula, whenever the circumstances of the patient will admit of it—with these the proper medicinal treatment may of course be combined.

In regard to *cod-liver oil*, Dr. G. states that he should certainly be inclined to recommend its use in cachectic cases of scrofula, both because he has seen its good effects, and also, because its use is now a fair subject for experiment, for which the treatment of the disease frequently furnishes a legitimate field.

He, in conclusion, suggests a trial of the effects of galvanism in scrofula. In the work of Labeaume, translated into the French by Fabré Palaprat, are several instances in which the application of galvanism to scrofulous tumours seems to have been attended with the result of either hastening their suppuration, or producing absorption.

The appendix contains twenty-three cases of external tuberculosis or scrofula, given in detail with the treatment pursued, in order to elucidate the author's views of the treatment of the disease.

The whole work is a highly interesting one—presenting a very large amount of valuable facts in elucidation of the pathology of the disease, and some useful hints in relation to its treatment. The time and labour occupied in its attentive perusal, will be well repaid by the information to be derived from it.

D. F. C.

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Art. XIII.—*Illustrations of Medical Botany; consisting of coloured figures of the plants affording the important articles of the Materia Medica, and descriptive letterpress.* By Joseph Carson, M.D., Professor of Materia Medica, in the Philadelphia College of Pharmacy; Member of the American Philosophical Society, of the Academy of Natural Sciences of Philadelphia; Fellow of the College of Physicians, &c. The Drawings on stone, by J. W. Colen. Philadelphia, Loyd P. Smith, 1847, No. 1, pl. xx. 44.

This beautiful work is admirably calculated to fulfil the intentions of the author; that of presenting faithful representations of the more important medicinal plants, with such accompanying text as is required to explain their scientific relations and remedial properties. In the execution of this, Dr. Carson has not only availed himself to the fullest extent of the labours of others, but has employed the ample materials at his command in the correction of errors, and in the diffusion of new and important information. The only objection we make to the work is, that he has not gone at greater length into the botanical and medical history of the various objects treated upon, as there is no one more capable of elucidating the subject, and of definitively settling many of the conflicting statements found in books, as regards the exact sources of many of the most common vegetable remedies.

The design of the work is merely to give the botanical history of the Materia Medica, and to indicate in the most concise manner the properties peculiar to each substance. This, as before said, has been accomplished in the happiest manner, both as regards the mechanical execution and the correctness and beauty of the plates, which are on so large a scale as will render them of essential benefit to teachers of Materia Medica in our various schools. As regards accuracy and beauty of design and finish, they have rarely been excelled, and we sincerely hope that such encouragement will be extended to the work, that the author will be induced to extend it beyond the limits to which it is at present designed to limit it.

The present number contains representations of twenty plants, comprising some of the most important medicinal plants, as the Black Hellebore, the Columba, the Opium, Poppy, &c. Many of them are from original designs, and those which are not wholly so, have been so corrected as to render them far superior to those used as the basis of the representation. Among those to which we would invite particular attention, is the figure of Krameria triandra, drawn from an original specimen, and differing widely from the distorted and caricatured representation in the Flora Peruviana, which has served as a model to all subsequent designers of the plant. The figure of Drimys chilensis is likewise original, and is an excellent illustration of a plant, furnishing one of the kinds of Winter's Bark, hitherto overlooked by writers on the Materia Medica, or alluded to with doubt.

We cannot too highly recommend this work to the attention of the profession, and feel convinced that it only requires to be known to be appreciated. It is "got up" in a very superior manner in every respect, and at a much more moderate price than books of a similar and we trust that both the author and the enterprising publisher will be amply repaid, both in fame and in a pecuniary point of view, for the labour and expense to which they have been subjected.

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Art. XIV.—*An Examination into the Health and Longevity of the Southern Seaports of the United States, with reference to the subject of Life Insurance.* By J. C. Nott, M. D., of Mobile, Ala.—(*South. Journal of Medicine and Pharmacy,* January and March,) 1847, pp. 32, 8vo.

We are gradually obtaining possession of a large amount of valuable information, relative to the influences exerted by climate in various sections of our widely spread country. The principal cities on the sea-board of the Middle and Eastern States, have each been subjected to very accurate investigation, and their relative conditions as to health and mortality exhibited through laborious statistical researches now made public.

In the West, Dr. Spare has laboured in the same cause, and presented tables and arguments illustrative of the influences of the climates of the Western States, on the continuance of life.* We have now, valuable additions from Dr. Nott, of Mobile, who, in the pages of the *Southern Journal of Medicine and Pharmacy,* has favoured us with his investigations into the Health and Longevity of the Southern portions of the Sea-board of the United States.

Among the curious facts developed through statistical researches is that of the greater proportion of those attaining to extreme longevity in the reputed sickly regions of the South, over those of the more healthy districts of the Northern States. The census shows a constant falling off in the proportions living at the several decennial periods, as we trace the numbers from the active to the advanced ages, far more rapid in the Southern and Western States, than in others of the same latitude. But beyond the age of 90, we find the reverse of this.

The more frequent instances of extreme longevity observed in the South, over those in the North, Dr. Nott thus attempts to explain. "May it not be accounted for by the well-known fact, that in very old people, in whom the vital powers are much exhausted, there is little power to resist extreme cold? The difference between town and country at the South, as will be seen by referring to the above table, is not great; but the difference at the North, is 100 per cent. or more, because the inhabitants of cities are not so exposed to extreme cold as those of the country; they are protected from winds by the multitude of houses, and their dwellings are better built for excluding cold. I will here quote a table from Quetelet's '*Recherches sur la reproduction et la Mortalité, de l'homme aux differens ages, et sur la population de la Belgique,*' which he gives 'in order that we may ascertain at what ages extreme heat or extreme cold is most to be feared.' I also add a table from Boston, by Mr. Shattuck.†

| | Deaths during Months of | | Deaths in July for 100 Deaths in January. | Deaths in Boston over 60. | |
|---|---|---|---|---|---|
| | *January.* | *July.* | | | |
| Stillborn, . . . | 269 | 215 | 0·80 | Jan'y, | 1·09 per cent. |
| First month after Birth, . | 3,321 | 1,719 | 0·52 | Feb'y, | 1·16 “ “ |
| 4 to 6 Years, . . | 878 | 600 | 0·59 | Mar'h, | 1·02 “ “ |
| 8 to 12 “ . . . | 616 | 447 | 0·73 | April, | 1·02 “ “ |
| 12 to 16 “ . . . | 409 | 420 | 1·05 | May, | ·80 “ “ |
| 16 to 20 “ . . . | 502 | 545 | 1·09 | June, | ·69 “ “ |
| 20 to 25 “ . . . | 361 | 796 | 0·93 | July, | ·77 “ “ |
| 25 to 30 “ . . . | 793 | 724 | 0·92 | Aug., | ·97 “ “ |
| 40 to 45 “ . . . | 818 | 613 | 0·75 | Sept., | ·75 “ “ |
| 62 to 65 “ . . . | 968 | 525 | 0·54 | Oct., | ·94 “ “ |
| 79 to 81 “ . . . | 658 | 332 | 0·51 | Nov., | 1·04 “ “ |
| 90 and upwards, . . | 252 | 99 | 0·39 | Dec., | 1·05 “ “ |

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* Hunt's Magazine, vol. xiii.

† Mr. Shattuck tells us, that the "winter months (in Boston) affect old people most unfavourably."

"This table affords a very strong corroboration of the above suggestions, and we might reasonably conclude that the climate of our more northerly States, which is characterized by a very wide range, and sudden fluctuations, is more unfavourable to old age, (as we *know* it to be to the early periods of life,) than Belgium. In our northern cities, old persons and children are both pressed upon by cold, and the mortality amongst the latter in summer is appalling. The worst climate perhaps in the civilized world, is that in the northern portion of the interior of the United States; viz., the northern part of Missouri, Iowa, Wisconsin, &c. We are informed by Dr. Forry that at Fort Snelling, (on the authority of Dr. Wright, a faithful observer,) 2 thermometers in 1834, went up to 116° and 117° Fahrenheit, and the same point is as cold as Moscow in winter. This extreme heat was in the coolest part of the house.

"Abundant evidence could be added to that of Quetelet and Shattuck, illustrative of the influence of cold on the aged, but I should overcharge the subject, and fatigue the reader by more.

"There is still another reason for the great proportion of centenarians seen in Charleston and New-Orleans, which, I think, will be clearly established before we close. Besides being removed from the fatal influence of extreme cold, the old inhabitants who are thoroughly acclimated, are *exempt from the summer diseases of the climate, and have few of winter to contend with*. Life ceases, because the machine is exhausted by the wear and tear of time.

"It has been contended by most writers on vital statistics, that a large proportion of centenarians, so far from proving high longevity of a population, is evidence of the reverse; they are said to exist in the greatest proportion in the most sickly places."

A fact well known along the sea-board of our whole country, even amid the marshes and jungles of the great and small rivers and bays of the Southern States, is that such situations are almost free from miasmatic disorders, and extremely healthy. Why this is so, Dr. Nott thinks it impossible to say. We have long been familiarly acquainted with this fact from personal observation—being a native of a flat alluvial district bordering upon the salt water—and feel perfectly satisfied that we can assign the cause of the exemption of marshy tracts from miasmatic fevers. This is our explanation. So far as the tide flows, the rank vegetation of the low and marshy tracts is kept alive, resisting decomposition until the frosts of autumn prevent its development. The plants thus decay without having undergone that kind of decomposition which produces the most deleterious gases. But wherever vegetable matter is accumulated in the beds, or along the flats of rivers, the subsidence of the water during the hot months leaves the vegetable deposits, and the rank growths fostered during the early part of the season, to decompose and throw off their poisonous emanations in a very concentrated state. So far, therefore, as the tide flows, or the waters retain the same level, throughout the season, health is maintained.

But, wherever the waters subside and leave the beds, banks and fertile flats to the destructive and decomposing influences of heat and moisture, there will sickness be engendered both in man and beast.

Even the distance of a mile or two from the stoppage of tide-water will manifest the existence of deleterious influences in the latter part of summer and autumn, unknown where the water, always coming to a level within the 24 hours, thus keeps vegetation alive.

This observation applies equally to salt water and fresh under the influence of the tide or attaining a certain level at all seasons.

Dr. Nott refers to the subject of yellow fever, or strangers' fever, as it is called in Charleston, and some other southern cities, and also to the country or bilious fever. The former is generated in crowded populations, and seldom attacks an individual more than once, unless he changes his residence, and remains away a sufficient length of time to lose his acclimation. In this respect there is a striking contrast with some other diseases of the South, and more especially with intermittent and remittent fevers, attacks of which tend to establish a strong predisposition to other attacks. Southern physicians have remarked that the newly arrived, plethoric foreigners, for a year or two seem to resist the unhealthy influences of southern climates better than the natives. "It is true," says Dr. Nott "that bilious fever attacks with more violence the plethoric stranger and is more often fatal to him; but, on the other hand, this miasmatic poison, (like Harpies, the fabled offspring of *Tellus and Oceanus*,) feeds upon the bloated livers of the native, and drags him prematurely to the grave. So far from being the apologist of the bilious fever regions of the south, I would rank them with the most detestable portions of the globe, out of the tropic of the old continents."

The immunity against yellow fever possessed by the negro race, is a very remarkable fact, which Dr. Nott thus notices. "I have seen the disease prevail five times in Mobile, and have attended several hundred cases amongst the whites, but not a single well-marked one in a pure blooded negro, and not more than two or three in mulattoes; although there is a greater number of unacclimated negroes and mulattoes here in the summer than whites. The smallest admixture of negro blood, even though the subject be brought from a more northerly state, seems to be a potent antidote against this morbid poison. I know there have been many exceptions in the history of yellow fever, and a memorable one has already been alluded to, in the epidemic of 1819 in this place, when whites, blacks, Indians and mixed bloods were attacked indiscriminately. These exceptions do not seem so remarkable, when we remember that there are many instances recorded where this disease, from unknown causes, has been extensively fatal also to birds and beasts."

Dr. Nott presents some very interesting tabular statements, exhibiting the condition of the population of Charleston, the diseases producing the mortality embracing a period from 1828 to 1845. In one of his comments, he makes the following statement in regard to visitations of yellow fever: "An examination of our table shows, that although there were light *endemic* visitations, there have really been no *epidemics* of yellow fever for the last twenty years, except those of 1838 and 1839, and in these two years the disease was brought into action by extraordinary causes. A medical friend of Charleston, who is familiar with the facts, and of high authority, writes me, 'during this year (1838), in April, a large part of the city was destroyed by fire, leaving an immense surface covered with decomposable matter, exposed to the rays of the sun; *many of the cellars and sinks were filled with water which it was impossible to remove, and in this very situation there was a vast number of foreigners occupied in removing the ruins.*' When there is an increased demand for mechanics and labourers, they will of course come in from other places, and we thus have not only a cause assigned for the disease, but the subjects supplied for it to feed on. The same causes were still in operation to some extent in the following year, 1839. The deaths of *non-natives* in these years were, 482, and 262, more than double the mortality in ordinary years amongst this class."

With regard to diseases of the liver and spleen, looked upon as the greatest curses of southern latitude, Dr. Nott observes: "Persons at the North, who have read Johnson on the Liver, and others works of English writers on diseases of *hot climates*, have often, without sufficient investigation, regarded the Southern States as similarly situated; but here we see that in Charleston (and so with Mobile and New-Orleans) diseases of the liver are almost unknown, while in Bengal, we are told, 'one half the deaths are from diseases of the liver.' I can declare with confidence, and my professional brethren here will sustain me, that I see fewer diseases of the liver in Mobile than of any important organ in the body. I do not think I exaggerate, when I say, that the cases in my practice, belonging to Mobile, do not exceed one a year. This remark only applies to the southern seaports. I have no apology to offer for the bilious fever regions of the interior of the Southern States, where all malarial disorders are seen in abundance."

Dr. Nott gives some interesting information in relation to the mortality of the coloured population of Charleston, and compares it with that exhibited in some northern cities, where its excess over that of the whites is so remarkable. "To those," he observes, "who believe that the excessive mortality amongst this class at the North, is attributable to climate alone, and who believe that the condition of the negro is capable of being improved by emancipation, I will say, without fear of contradiction, that if health and longevity (and I might add happy faces) are evidences of physical comfort and content, they are in a better condition in Charleston, (and the Southern States generally,) than any labouring class on the face of the globe. It is a remarkable fact that this class in Charleston, shows not only a lower mortality than any labouring class of any country, but a lower mortality than the aggregate population (including the higher classes, nobility and all), of any country in Europe, except England, with which it is about on a par. If we could separate the free coloured, the ratio would doubtless be below England, as it is now below her towns taken apart from the country. Freedom and climate combined in Boston, are far more destructive to the negro than slavery and Asiatic Cholera at the South. This scourge, which in 1836, in Charleston, fell most heavily upon the negroes, raised the mortality for that year, to one in 20; while in Boston, it *averages* about 1 in 15."

Our time does not permit us to notice many other interesting points connected with Dr. Nott's investigations. He has thrown out much valuable information from the comparatively scanty materials he has been able to collect, and being deeply imbued with the proper spirit for investigating such subjects, he will doubtless furnish the public on some future occasion with additional inquiries into the chances of life in the South.

G. E.

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Art. XV.—*On Indigestion, and certain Bilious Disorders often conjoined with it. To which are added short Notes on Diet.* By George Chaplin Child, M. D., Physician to the Westminster General Dispensary. London: John Churchill, 1847. 8vo. pp. 219.

This little volume, though offering nothing of striking novelty, presents an excellent account of indigestion and its attendant ills, and is evidently written by one who has seen much and observed well. Indeed, the author says "the materials for this volume have been gradually collected in the course of several years, during which my attention was closely directed to its subject. Throughout the inquiry, I recorded in a uniform manner—secured by means of printed tables—all cases of indigestion that occurred to me in practice, and by carefully collating these together, I endeavoured to deduce accurate inferences respecting the disease. The opinions contained in this book may be viewed as the conclusions to which I was in this way led." (Preface, p. ii.)

To make the work more completely practical, it was deemed expedient to describe certain hepatic derangements which, blended with the symptoms of indigestion in every possible way, constitute the majority of cases actually presented for treatment.

The earlier chapters treat of the Causes, Physiology, and Morbid Anatomy of Indigestion, and this portion of the subject is very cleverly handled, and shows Dr. Child to be well acquainted with the labours of recent investigators. In Chapter IV., on the varieties of Indigestion, the difficulties and inconveniences of any fixed principle of classification are pointed out. A description of the various forms, and prominent symptoms of Indigestion, with its complications, occupies the remainder of this little treatise. We are unable to follow the author in his excellent and detailed account of the innumerable phenomena of this Protean disorder, or to notice the very judicious measures he recommends for their relief. We can only express our conviction of the value of this unpretending volume, treating, as it does, of complaints, which pervade all ranks of society, and which, though not for the time seriously interfering with the daily avocations of the sufferer, render too often his existence cheerless and irksome, and are certain, ultimately, to inflict profound and lasting injury upon the constitution.

In conclusion, we may mention that Dr. Child speaks very highly, as an astringent tonic, of the algaravilla, a South American plant, and hitherto used only in the arts. Its medicinal properties he states to be those of an astringent and demulcent; it is soft to the taste, and easily borne by the stomach, hence in dyspepsia may be given earlier in the treatment than most other remedies of the same class. He has found the algaravilla peculiarly suited to the diarrhœa of children. The decoction is made by boiling an ounce of the substance, in twenty-five ounces of water for a quarter of an hour, and straining when cold. The dose for an adult is two or three tablespoonfuls thrice daily. The part of the plant imported consists

of the pods, bruised and agglutinated more or less with the extractive exudation of the seeds and husks. The infusion and decoction contain much tannin, with a large quantity of mucilaginous matter.
M. C.

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ART. XVI.—1. *Seventh Annual Report of the Superintendent of the Insane Hospital at Augusta, Maine, for* 1846.
2. *Tenth Annual Report of the Superintendent of the Vermont Asylum for the Insane, at Brattleboro*, Sept., 1846.
3. *Twenty-ninth Annual Roport of the Physician and Superintendent of the McLean Asylum for the Insane, for* 1846.
4. *Seventh Annual Report of the Superintendent of the Boston Lunatic Hospital for* 1845, 1846.
5. *Fourteenth Annual Report of the Superintendent of the State Lunatic Hospital, at Worcester, Mass., for* 1846.
6. *The Twenty-third Annual Report of the Physician and Superintendent of the Retreat for the Insane, Hartford, Connecticut, for the year ending* March 31st, 1847.
7. *Fourth Annual Report of the Superintendent of the New York State Lunatic Asylum at Utica, for the year ending* Nov. 30th, 1846.
8. *Report of the Pennsylvania Hospital for the Insane, for the year* 1846. By THOMAS S. KIRKBRIDE, M. D., *Physician to the Institute.*
9. *The Fourth Annual Report of the Mount Hope Institute, (Baltimore,) for the year* 1846. By WILLIAM H. STOKES, M. D., *Physician.*
10. *Annual Report of the Physician and Superintendent of the Western Asylum, Virginia, for the year* 1846.
11. *Eighth Annual Report of the Superintendent of the Ohio Lunatic Asylum, from* Nov. 15, 1845, *to* Nov. 15, 1846, *inclusive.*
12. *Report of the Superintendent of the Kentucky Lunatic Asylum, for the year* 1846.
13. *Second Annual Report of the Commissioners and Superintendent of the Hospital for the Insane, to the General Assembly of Indiana*, Oct. 31st, 1846.

1. FROM this, the second report, by Dr. Bates, since he became connected with the Hospital at Augusta, we learn that that Institution is in a flourishing condition, and the number of its inmates in 1846, was greater than in any previous year.

| | Males. | Females. | Total. |
|---|---|---|---|
| Patients in Hospital, Nov. 30, 1845 | 55 | 30 | 85 |
| " admitted during the year | 45 | 57 | 102 |
| Whole number of cases during the year | 100 | 87 | 187 |
| Discharged during the year | 41 | 46 | 87 |
| Remaining Nov. 30, 1846 | 59 | 41 | 100 |
| Of the patients discharged, there recovered | 23 | 23 | 46 |
| " " died | 3 | 2 | 5 |
| Whole number of patients admitted in 6 years | 323 | 265 | 588 |
| " " discharged | 241 | 216 | 457 |
| Of whom there were recovered | — | — | 217 |
| Besides those discharged there have died | 21 | 10 | 31 |

In order to obviate, at this Hospital, those premature removals of patients so generally complained of, by the Physicians of Institutions for the Insane, the Board of Trustees have passed an order requiring six months residence, unless the patient be previously cured, or it be thought expedient for other reasons to discharge him.

The following passage in the report before us being of general application, in some respects, is extracted for the benefit of those whom it may concern.

"My professional brethren will pardon me, I doubt not, if I express the opinion, that the subject of insanity occupies quite too small a space in their education, and subsequent investigations. Neither private teachers nor public schools give it more than a passing notice. This fact is not peculiar to our state or country. If I have the opinion that not one-half the medical practitioners in Maine, possess a standard, scientific work wholly to the subject, perhaps no good will come of making it public. But if every devoted physician did possess the requisite qualifications, insane persons could not be as well treated at home as in a Hospital. Whether the disease has been produced directly or indirectly, by a physical or moral cause, or both the scenes and associations, which accompanied, nay, may have produced the malady, are ill calculated to promote its cure. Nor can all the necessary conveniences and appliances be had in a private family, nor can the prescriptions of a physician be there followed and enforced, as they can in an institution fitted for the purpose.

“ Without aspiring to be a public teacher, I may be permitted to make a few suggestions to my professional friends, which my limited acquaintance with the subject enables me to offer. I will lay down a single proposition, viz.: Precisely the same *medical* treatment is required, when insanity is present, (which is only a symptom,) as in the same irritations and actions, in similar or the same organs, when that symptom is absent.

“ For want of this simple mode of investigation, many physicians, I am confident, take it for granted that inflammation is necessarily present, in all cases of acute mania, and the lancet follows the opinion promptly, perhaps repeatedly. It is not insisted that general bleeding is *never* necessary, but I do believe very few cases require it, and thus more injury is done in most cases to the powers of the brain, than by any other active remedy usually resorted to. Temporary or permanent dementia often follows this depletion. As arterial action is always unequal, local, instead of general blood-letting, would be as efficient, if not more so, and in my opinion more safe.

“ Another mistake often made by friends, and physicians is, in considering those cases, in which melancholy is a prominent symptom, as requiring a more tonic and stimulating course than those of mania. This by no means follows as matter of course. The difference often consists in the portion of the organ affected, and not in its vigour, nor action of its vessels.

“ Another more common and grave mistake in these cases arises from their being less violent, and occasioning less trouble to those who have the care of them, consequently their proper treatment is neglected, until none which can be adopted will succeed. Organic change has taken place, and the patient drags out a miserable existence, or commits suicide, and the friends lay the flattering unction to their souls, ‘ that they *have done all they could;*’ and so the matter rests.”

2. By Dr. Rockwell's report we are informed that, in the Vermont Asylum for the Insane, at the commencement of the year,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients was | 126 | 143 | 269 |
| Admitted during the year | 95 | 102 | 197 |
| Whole number for the year | 215 | 245 | 460 |
| Discharged during the year | 78 | 91 | 169 |
| Remaining Aug. 1, 1846 | 137 | 154 | 291 |
| Of those discharged there recovered | | | 94 |
| “ “ died | | | 25 |
| Whole number of patients admitted in ten years | | | 1032 |
| Of whom have recovered | | | 434 |
| “ “ died | | | 84 |

Dr. R.'s report is as usual very brief, and is mostly occupied with topics which have been heretofore laid before our readers. The following extract gives us some insight into the Doctor's method of treatment.

“ Whenever there can be detected any physical disease in any part of the human system, it is treated as in other states of the mind. After all, we depend much on the faithfulness of kind and intelligent nurses, wholesome and nourishing diet, neat and well ventilated apartments, the different kinds of bathing, plenty of exercise in the open air, either by riding, walking, or cultivating the garden and farm, and all such agreeable employment of the mind and body, as shall promote health, and call into exercise those faculties of the mind as are unemployed.

“ Reading and writing

restoration of the insane. The patients are furnished with stationery, and are encouraged to write on all subjects except that of their insanity. The practice of writing improves the power of fixing the attention, and tends to restore the lost balance by directing the mind from its delusions, and calling into exercise those faculties which would otherwise lie dormant. Even when they write on the subject of their delusions they disclose the nature of their insanity more clearly than could be learned in any other way."

The general course of moral treatment is the same as in other institutions.

3. By Dr. Bell's report it appears that at the McLean Asylum,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients January 1, 1846, was | 78 | 73 | 151 |
| Admitted during the year | 76 | 72 | 148 |
| Whole number during the year | 154 | 145 | 299 |
| Discharged during the year | 66 | 60 | 126 |
| Remaining at the end of the year | 88 | 85 | 174 |
| Of the patients discharged there recovered | 34 | 31 | 65 |
| " " " " died | | | 9 |

*Causes of Death.*—Old age, 2; epilepsy, 1; general exhaustion, 1; acute disease of brain, 2; *paralysie générale*, 3.

During the past ten years, from 1837 to 1846 inclusive,

| | |
|---|---|
| The whole number of patients admitted was | 1,383 |
| Of whom there have been discharged restored | 715 |
| " " died | 128 |

At the commencement of 1837, there were 71 patients already in the asylum. Adding these to the above number of admissions (1383), the whole number of patients under treatment appears to have been 1454.

A large part of Dr. B.'s report is occupied with an exposition of the collateral, or, strictly speaking, illegitimate subjects heretofore discussed in the reports emanating from the various institutions for the insane. Upon one of these topics he discourses as follows.

"There was also a period in our progress of provision for the insane, in which for an end which alone would justify so repulsive and unprofessional a deviation, namely, the endeavour to arouse attention by the contrast of insane persons in hospitals, or as neglected, it was customary to devote many pages to details, often revolting and painful, of the sufferings and delusions which at all times and places certain cases of insanity may present. The disease of insanity is already surrounded with too many real and factitious features of repulsiveness, to justify any further obstacles to the public mind regarding it, as the well-informed and unprejudiced now do, as a purely physical illness, associated as all severe illness is with many things unpleasant and distressing, and which we naturally shrink from holding up to the world. Should we care to have the extravagancies of ourselves or of our immediate friends drawn up graphically even without colouring or exaggeration, and perpetuated for the gratification of a perverse taste, which sees nothing in such delineations but a proper topic of interest and gratification? Every institution has its cases of extreme severity and of intense interest, deserving of perpetuation and investigation in the proper repertories of medical science; but if we would continue to hope for and promote a just estimate of the character of insanity as a physical malady, the fewer high painted 'Bedlam sketches' which are offered to the mixed community, the better will it be for the sane, and the more just and humane to those now suffering or destined hereafter to suffer under this severe affliction. That the names of particular sufferers may be thrown under the veil of partial concealment by anonymous references or initials, may lessen the blow, although experience shows how thin this veil is to the individual, but does not prevent the false and ungenerous hue thrown over the malady itself. In regard to all other diseases, affecting for a while the reason or not, it would be considered as in the worst taste, if not a breach of common confidence, to detail the minutiæ of symptoms to the world. Nothing in my views can sanction hereafter such an employment of annual reports, even if the object hitherto to be attained. that of arousing apathetic communities, may be accepted as a partial explanation."

4. The report of Dr. Stedman includes a period of seventeen months, from the 1st of July, 1835, to the 13th of November, 1846.

| | Males. | Females. | Total. |
|---|---|---|---|
| Number of patients June 30th, 1845 | 65 | 55 | 120 |
| Admitted since | 20 | 29 | 49 |
| Whole number under treatment | 85 | 84 | 169 |
| Discharged | 20 | 22 | 42 |
| Remaining November 30th, 1846 | 65 | 62 | 127 |
| Of those discharged there were restored | 8 | 12 | 20 |
| " " " died | 6 | 6 | 12 |

*Causes of Death.*—Consumption, 4; general paralysis, 4; dysentery, 1; epilepsy, 1; exhaustion, 1; marasmus, 1.

In speaking of the causes of disease, in the 49 patients admitted in the above-mentioned period, Dr. S. remarks as follows:

"Home-sickness is a cause assigned for the disease in five cases. This has but in one case before been found on our record, and yet, I am persuaded, it is a more common cause than is usually supposed. It is, in all cases, observed among those who have recently left Ireland, and these are principally females."

The Boston Lunatic Hospital, like most of the other institutions of the kind connected with the almshouses of our large cities, is but poorly adapted to the purpose of a curative institution. Its accommodations are not adequate to the number of its inmates, a proper classification of the patients is impossible, and the resources for a judicious moral treatment are but small. But, says Dr. S., "we enter on another year with warm anticipations of success and happiness—looking forward as we do to the enlarged means of comfort which will be afforded to all our inmates, on the completion of the new wings of the building, and in the hope that every obstruction to a more improved management will speedily be removed, and every needed facility for success obtained."

5. Dr. Woodward, whose name has so long been connected with the Massachusetts hospital, has resigned his office in that institution, and has been succeeded by Dr. George Chandler, whose first report is before us. It is preceded by the annual report of the trustees, from which we extract the following high compliment to Dr. Woodward.

"In a peculiarly interesting connection with the contemplated resignation of the first Treasurer of the Hospital, the Trustees are at this time obliged to report the actual retirement from office of its first Superintendent, who had nearly completed a period of fourteen years, exclusively devoted to the regular and punctilious discharge of most laborious and self-sacrificing duties. It is unnecessary for the Trustees to refer, in any detail, to his services. All that the Hospital has been and is; all that has made it a blessing and a glory to the commonwealth, and a model institution for the whole country, is to be attributed, in an eminent degree, to the professional skill, the personal address and energy, the conscientious fidelity, and the pure and ardent philanthropy of Samuel B. Woodward; and while the institution shall exist, his name cannot cease to be most honourably and gratefully associated with it. It was with the greatest reluctance, after repeated efforts to avert it, that the Trustees yielded to his decision to leave the Hospital; but in doing so at last, they were compelled to admit the justness of his views in regard to the state of his health, which had evidently been impaired by his official labours, and also, to defer to the private considerations to which, as they well knew, he had long delayed to give their due weight."

In regard to Dr. Chandler, the trustees say: "They are happy to express their belief that, under his administration, the usefulness and reputation of the Hospital will be maintained, and that those concerned in its welfare may rely on his ability, and his solicitude to perform all the professional and other services which properly devolve upon him.

| | Males. | Females. | Total. |
|---|---|---|---|
| Patients in the Hospital, Dec. 1, 1845 | 192 | 168 | 360 |
| Admitted in the course of the year | 138 | 139 | 277 |
| Whole number | 330 | 307 | 637 |
| Discharged | | | |

| | Males. | Females. | Total. |
|---|---|---|---|
| Remaining at the end of the year | 200 | 167 | 367 |
| Of those discharged there recovered | 72 | 82 | 154 |
| " " died | 20 | 18 | 38 |

*Causes of death.*—Marasmus 5, apoplexy and palsy 2, epilepsy 2, consumption 4, disease of heart 2, suicide 3, disease of brain 6, lung fever 3, dropsy 1, erysipelas 2, diarrhœa 4, congestive fever 1, rupture 1, exhaustion 1, convulsions 1.

| | Males. | Females. | Total. |
|---|---|---|---|
| Whole number of patients admitted in 14 years | 1328 | 1255 | 2583 |
| " " discharged do. | 1049 | 961 | 2010 |
| Of whom there recovered | 573 | 619 | 1192 |
| " " died | 119 | 94 | 213 |

"Ill health," says Dr. Chandler, "is the most prominent cause of insanity, as classed in our table of causes, which is mostly made up from the representations of relations and others who bring patients to the Hospital. But this cause, arising from its many sources, is undoubtedly the most fruitful of mental derangement. Its tendency is to impair the material instrument of the mind, so that impressions made upon it are responded to in a deranged tone. Ill health is often accompanied by want of sleep, which is one of the most invariable symptoms of recent insanity; and it so often precedes it as frequently to be regarded as a cause.

"There are usually several circumstances, all of which conspire to bring on that state of brain and nervous system that results in mental derangement. The one that seems most prominent to the friends is the one here recorded. It is difficult, and often impossible, to ascertain the true and relative bearings of the various circumstances around us, upon our own minds, but it is much more difficult to ascertain the precise objects that suggest each successive link in the chain of thought that is passing through the mind of another."

One of the most interesting portions of Dr. C.'s report, is a table "showing the prospect of living for those who are attacked with insanity and do not recover, deduced from one hundred and ninety-three cases that terminated fatally at the hospital."

The average duration of life of these one hundred and ninety-three persons of both sexes, after becoming insane, was four years, five months and twenty-one days. "The chance of life," says Dr. C., "for those not labouring under any disease of the body or mind, is computed, at the corresponding ages, by Insurance Co.'s, to be about twenty-five years."

The moral treatment at the Hospital in Worcester has always been elaborate, and efficiently conducted. During the winter of 1845–6, Dr. Woodward established a school for the patients. It was continued for some time "with interest and benefit to those who took part in the exercises," but was finally suspended.

6. From Dr. Butler's report we glean the following statistics:—

| | Males. | Females. | Total. |
|---|---|---|---|
| Patients in the Retreat at the beginning of the year | 53 | 63 | 116 |
| Admitted in the course of the year | 50 | 61 | 111 |
| Whole number | 103 | 124 | 227 |
| Discharged | 47 | 62 | 109 |
| Remaining, April 1st, 1847 | 56 | 62 | 118 |
| Of those discharged there recovered | 16 | 40 | 56 |
| " " died | 8 | 3 | 11 |

*Causes of death.*—Epilepsy 1, paralysis 1, disease of brain 2, marasmus 1, exhaustion 3, disease of heart 1, chronic diarrhœa 1, erysipelas 1.

| | |
|---|---|
| Whole number of admissions in 23 years | 1671 |
| " " recoveries " | 902 |
| " " deaths " | 131 |

"Recovery from insanity alone," says Dr. Butler, "is frequently not the only benefit patients derive from a prolonged residence in asylums. The seclusion from excitement, and the suspension of their ordinary avocations, give them oftentimes an opportunity, which they would not otherwise have, of obtaining permanent relief from various chronic maladies that may have had an important influence in producing their mental disease.

"A greater gain than this is not unfrequently found in the improvement of the moral character of those in whom insanity has been induced by the gratification of the appetites, or the indulgence of the passions.

"The observation of other cases like their own; the good order and regularity which surround them; the salutary restraints to which the paternal discipline of the house requires them to submit, together with all the moral and religious influences which are brought to bear upon them during this period of reflection, have in many cases been productive of the happiest effects.

"The lessons thus learned from the errors of the past, and of their ability to avoid them in future, are hardly less essential to their future usefulness and enjoyment, than the relief from mental disease.

"The intimate connection between many of the most prolific of the predisposing causes of insanity and erroneous educational influences, has been too much overlooked. It is a consideration of great importance, and much remains to be learned respecting it. Abundant illustrations may be found in every Lunatic Hospital. We often attribute insanity to some apparent exciting cause, while the full history of the case would show that for its real, though more remote cause, we must go back to the years of early life—to the family and the school where the neglect to teach habits of reverence and submission, of self-denial and self-control, and where the indulgence of the propensities, and the neglect of the better qualities of our nature, have sown the seeds which are now ripening their harvest of sorrow and disease. This is an important subject, neglected now, but by and by to be better appreciated and understood."

7. By Dr. Brigham's report it appears that, at the New York State Asylum,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients Nov. 30, 1845, was | 143 | 142 | 285 |
| Admitted during the year | 163 | 174 | 337 |
| Whole number | 306 | 316 | 622 |
| Discharged | 119 | 129 | 248 |
| Remaining, Nov. 30, 1846 | 187 | 187 | 374 |
| Of those discharged, there recovered | 65 | 68 | 133 |
| " " " died | 13 | 9 | 22 |

*Causes of Death.*—Inflammation of lungs, 2; marasmus, 7; consumption, 5; convulsions, 2; disease of heart, 2; effusion on the brain, 1; suicide, 1; paralysis, 1; apoplexy, 1.

| | |
|---|---|
| Whole number of patients from Jan. 16, 1843, to Dec. 1, 1846 | 1,181 |
| Discharged | 807 |
| Of whom have recovered | 453 |
| " " died | 66 |

At the present day, there are but few novelties in the moral treatment of the insane. The subjects alluded to in the following extracts, are among the newest things of this country.

"Recently, we have added to our chapel, a new and valuable organ; it has been purchased with a portion of the avails of our last annual fair, and those anticipated from the next. It is usually played by a patient, and we consider it a valuable addition to our music."

"Schools have been continued, as heretofore, during the winter season; and our confidence in their usefulness in institutions for the insane, increases with every year's experience. Schools, with occasional exhibitions, the acting of original plays, and other literary exercises, together with labour, constitute our best, and, in fact, nearly our only amusements."

"Recently, we have had at the Asylum, several theatrical performances, embracing tableaux, the acting of short original plays, declamation, music, &c., which has not only interested the patients themselves, but elicited the applause of visitors and strangers who were present."

Dr. Brigham, while at the retreat for the insane at Hartford, and during his connection with the asylum at Utica, has made observations on the pulse of 1,2 insane patients.

The results are as follows:

| | | | | | |
|---|---|---|---|---|---|
| From | 40 to 50 | beats per minute | in | 8 | patients |
| " | 50 to 60 | " | " | 22 | " |
| " | 60 to 70 | " | " | 183 | " |
| " | 70 to 80 | " | " | 233 | " |
| " | 80 to 90 | " | " | 466 | " |
| " | 90 to 100 | " | " | 144 | " |
| " | 100 to 110 | " | " | 124 | " |
| " | 110 to 120 | " | " | 54 | " |

He has also carefully measured, in several directions, the heads of 1163 p tients, and from the data thus obtained, concludes that "the size of the heads the insane does not differ materially from that of the sane."

From a section of the report devoted to the hereditary predisposition to insani we make the following extract.

"Of 1181 patients who have been in the asylum, viz., 594 men, and 587 w men, 315 were known to have insane relatives. That many of the others we thus predisposed we do not doubt, but we were not able to learn anything respec ing their relatives; 175 were known to have insane parents, viz., 79 men, and women.

"It would appear from our inquiries, and they have been very carefully co ducted, that insanity is a little more likely to be transmitted by the mother than the father, and that mothers are considerably more likely to transmit to daughte than to sons; while the fathers most frequently transmit it to sons. Thus out 79 men, 42 had insane fathers and 35 insane mothers, and in two instances bo parents were deranged; while of 96 women, 37 had insane fathers and 56 insa mothers, and three inherited a predisposition to insanity from both parents."

In the remarks upon the suicidal form of insanity it is stated that, of th 1181 patients admitted into the asylum, 156 were disposed to suicide. "It i however," says Dr. Brigham, "a consoling fact, that this alarming variety of i sanity is quite often a curable one. Among the most complete and permanent rec veries from insanity we have ever known, are a considerable number, who, f several months, were very strongly inclined to self-destruction."

The most valuable part of the report, particularly in a medico-legal point of vie is an essay upon homicidal insanity, evidently the result of much observatio reading, and reflection. We have room for but two extracts—the first, a clas fication of homicidal cases; the second, an important observation in reference the frequently alleged test of insanity—a *knowledge of right and wrong.*

"According to our observation, the homicidal insane may be arranged wi propriety in six classes; those belonging to one class appear to be actuated b motives or feelings different from the others, or the circumstances accompanyi the act indicate a difference in their mental condition.

"1st. Those who take life in a paroxysm of passion or fury.

"2d. Those who commit a homicide from delusion, who are deceived and mi led by their hallucinations, illusions, or disordered imaginations.

"3d. Those who kill indiscriminately and apparently from a love of taking lif from a diseased propensity and conscious desire to destroy others, against whic act neither reason nor conscience remonstrates.

"4th. Those who kill without any apparent motive, from a sudden impulse, b of which they are not conscious, and who retain no recollection of anything th prompted them to the act.

"5th. Those disposed to commit the same crime, and without motive, from a irresistible impulse, of which, however, they are conscious, and against which re son often remonstrates.

"6th. Those who kill from imitation, or from an insane love of notoriety.

"We have endeavoured at various times to ascertain from the insane themselve their ability to distinguish right from wrong, and for this purpose have questione on this subject in various ways several hundreds, and we cannot better exhibit i inapplicability as a test of their responsibility, than to say, what the truth enable us to say, that a large proportion of the insane now at this asylum appear to understand its distinctions as well as persons in the community at large."

| | Males. | Females. | Total. |
|---|---|---|---|
| 8. The number of patients at the Pennsylvania Hospital for the Insane, Jan. 1st, 1846, was | | | 169 |
| Admitted during the year | | | 167 |
| Whole number for the year | | | 336 |
| Discharged | | | 175 |
| Remaining Dec. 31st, 1846 | 86 | 75 | 161 |
| Of the patients discharged there were cured | | | 89 |
| " " " died | 7 | 7 | 14 |

*Causes of death.*—Organic Disease of Brain, 2; Exhaustion following acute mania, 4; Epilepsy, 2; Pulmonary consumption, 1; Marasmus, 2; Suicide, 1; Cholera Morbus, 1; Delirium of fever, 1.

In reference to the case last mentioned, Dr. Kirkbride makes the following very correct observations. In several instances, where the patient was suffering under the delirium of fever or of acute cerebral inflammation, we believe we have known the disease hastened to a fatal issue by subjecting the person to the exposure and fatigue of a ride to an asylum several miles distant.

"Although the general principle is well established and cannot be too steadily insisted on, that insanity is curable in proportion to the early period at which it is placed under treatment, and that a prompt removal from familiar scenes is commonly desirable, still a certain class of cases does exist, in which much harm is often done, and great disappointment in results produced, by a too early removal from home and the care of friends. The class alluded to is of that peculiar form, in which many days are frequently required to decide correctly whether there is not more acute inflammation of the brain or its membranes, than simple uncomplicated insanity. If it be the former, it is hardly necessary to say that all exposure, joined perhaps with a long journey, is certainly productive of serious injury, and not unfrequently of fatal results. Where there are any grounds for these doubts, or where patients are greatly prostrated from any cause, it will always be found best and ultimately most satisfactory to their friends, to have them retained at home, even with great temporary inconvenience, till the nature of the case is clearly made out, or until sufficient strength is regained to permit their removal without any risk from the fatigues of the journey. A very few weeks, often a single one, will be sufficient to remove all ambiguity, and the result will rarely fail to be such as to compensate for any additional trouble to which the patient's friends may have been subjected. The chances of an early recovery, if the disease proves to be insanity, will not be at all diminished by this course."

| | Males. | Females. | Total. |
|---|---|---|---|
| Patients admitted since opening of Hospital | 542 | 394 | 936 |
| Discharged | 456 | 319 | 775 |
| Of whom were cured | 239 | 163 | 402 |
| " died | 50 | 34 | 84 |

A section of the report is devoted to the "provision for chronic cases," in which the Doctor advocates the keeping of such cases in curative institutions. "While life lasts," says he, "every case should be considered under treatment if not to cure, at least to keep it from becoming worse."

"Every year presents us with cases that should teach us never to despair—at least to treat all as though there was still hope of returning health—to surround our oldest and worst cases with as many as possible of the influences that would be likely to impress favourably the most recent and hopeful patients, and as few as can be of those which might tend to retard their restoration."

From that part of the report which is devoted to moral treatment, we make the following extracts; the first relating to lectures, the second to the introduction of a new, and, to us, apparently valuable *employé* into the institution under his care.

"No experiment in the way of combining profitable instruction, mental employment and amusement, has, upon the whole, resulted in such entirely good results, without a single counterbalancing objection."

"At least twice every week for nearly six months, we had before us the gratifying spectacle of near one hundred of our household, assembled to listen to lectures or to witness exhibitions, paying, on all occasions, a respectful and quiet attention to the remarks of the lecturers and the varied illustrations, and with a degree of propriety of general behaviour, that certainly would not compare unfavourably with many of the lecture rooms in our cities."

"In the female division of the house, we have this year commenced the employment of a lady who, released from the care and supervision of the wards, will be able to devote the whole of her time as a companion to the patients, aiding them in their studies, teaching those whose early education has been neglected, reading in the wards, when desired, encouraging and assisting in fancy and useful needlework, or, when required, devoting hours of a day, or even whole days to a single patient, who has just, for the first time, perhaps, left home, and feels sensibly the loneliness,—useful as it often is, of a residence among entire strangers; or when serious illness arises, to be so constantly present, as a counsellor and aid to the regular attendants, as to know that all little directions are faithfully carried out, and that all little comforts are properly attended to."

9. At the commencement of the year 1846, in the department for the insane of the Mount Hope Institution, at Baltimore,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients was | 18 | 39 | 57 |
| Admitted during the year | 70 | 37 | 107 |
| Whole number for the year | 88 | 76 | 164 |
| Discharged | 68 | 36 | 104 |
| Remaining | 20 | 40 | 60 |
| Of those discharged there recovered | 54 | 14 | 68 |

This large per centage of cures is accounted for, from the fact that a very large majority of the patients restored to health were not insane, but suffering under mania à potu. The statistics, as we understand them, for they are somewhat ambiguous, should be as follows:

| | Males. | Females. | Total. |
|---|---|---|---|
| Recovered from Insanity | 10 | 11 | 21 |
| " " Mania à potu | 44 | 3 | 47 |
| Died of Insanity | 3 | 5 | 8 |
| " Mania à potu | | 3 | 3 |

As the subject of moral insanity is one not well understood, and, indeed, as there are many people, both professional and non-professional, who disbelieve in the existence of such a disease, we extract the views of Dr. Stokes thereupon.

"It will be perceived that we have to record an increased proportion of cases of moral insanity. This is a species of derangement which displays itself by a perversion of the affections, temper, habits, and moral feelings and dispositions of the individual. A knowledge of the fact cannot be too generally extended, that this form of insanity is very often the result of a faulty education of over indulgence in early life. It often results from the parent not having sufficiently restrained the caprices and the temper of the child, and from neglecting to check occasional transports of excessive irascibility. By a too great indulgence, and a want of moral discipline, the passions acquire greater powers and a character is formed subject to caprice and to violent emotions. This unchecked liberty of action degenerates, as life advances, into an unbridled licentiousness; and thus a predisposition to insanity is laid in the temper and moral affections of the individual. In such persons the derangement is not that of perverted judgment, but of perverted moral sentiment; there is a propensity to commit every kind of mischief, and to display the utmost malevolence without any ground of provocation. A deadly hatred is conceived for the nearest relative, as the father or mother. This condition of mind may eventually lead to acts of dangerous violence, or even to criminal acts, and confirmed and incurable insanity. Hence the importance of cultivating the proper regulation of the disposition and the feelings at a period of life when they can be controlled by parental authority. Another fertile source of this species of derangement has appeared to be an undue indulgence in the perusal of the numerous works of fiction, with which the press is so prolific c late years, and which are sown broadcast over the land with the effect of vitiatin the taste and corrupting the morals of the young. Parents cannot too cautiousl guard their young daughters against this pernicious practice. We have ha several cases of moral insanity, for which no other cause could be assigned tha excessive novel reading. And nothing is more likely to induce this disease tha that education which fosters sentiment, instead of cherishing real feeling such a results from the performance of active benevolence, and the sacred duties of ordinary life, and of religious obligations, which awakens and strengthens the imagination without warming the heart; and to borrow the language of an eminent divine, places the individual "upon a romantic theatre, not upon the dust of mortal life."

10. By Dr. Stribling's report it appears that in the asylum at Staunton, Virginia, at the commencement of the year 1846,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients was | 114 | 68 | 182 |
| Admitted in the course of the year | 46 | 46 | 92 |
| Whole number during the year | 160 | 114 | 274 |
| Discharged | 37 | 20 | 57 |
| Remaining, Dec. 31, 1846 | 123 | 94 | 217 |
| Of the patients discharged, there recovered | 18 | 14 | 32 |
| " " " died | 15 | 5 | 20 |
| Whole number from July 1, 1836, to Dec. 31, 1846 | 325 | 183 | 508 |
| Discharged | 219 | 98 | 317 |
| Of whom were cured | 118 | 62 | 180 |

It appears from the report, that Dr. Stribling is endeavouring to introduce manual labour, to as great an extent as possible, among his patients. A building containing several apartments intended for workshops, has recently been erected. "In addition," says Dr. S., "to shoemaking, carpentering, cabinet making, mattrass and broom making, we design, the ensuing year, manufacturing hats. One of our attendants, who is an experienced and skilful workman at this business, has consented, for a small increase of wages, to undertake, with the aid of the patients under his care, the making of all the hats needed for the institution: and as the outlay for tools and materials will be comparatively trivial, and the facilities for furnishing profitable employment to our inmates be thus increased, we will not fail to avail ourselves of so important an acquisition to the mechanical department."

11. At the State Asylum, Columbus, Ohio, on Nov. 15, 1845,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients was | | | 224 |
| Admitted during the year | 88 | 87 | 175 |
| Whole number under care | | | 399 |
| Discharged during the year | | | 108 |
| Remaining, Nov. 15, 1846 | 150 | 141 | 291 |
| Of those discharged, there recovered | | | 71 |
| " " died | | | 18 |
| Whole number of patients in eight years | 461 | 405 | 866 |
| " " " discharged | 316 | 259 | 575 |
| Of whom, have recovered | 205 | 153 | 358 |
| " " died | 53 | 39 | 92 |

*Causes of Death.*—Inflammation of liver, 1; dropsy, 4; inflammation of brain, 4; fever, 8; apoplexy, 2; palsy, 4; consumption, 10; epilepsy, 15; marasmus, 11; diarrhœa, 11; dysentery, 12; inanition, 7; atrophy, 3.

Dr. Awl gives the following account of an epidemic, which has visited the institution in the course of the year.

"Winter commenced early, and with it came an epidemic fever of a synochal grade, which continued with us a long while, and was severe It did not attack a great many persons at the same time, but every case proved obstinate so that between the different inmates and attendants who were taken, and the duration of the disease in each, we were not without sickness in the institution, from the beginning to the end of the season. The fever was attended with a hot, dry skin, quick and frequent, but not strong pulse, slight hacking cough, dull pain in the forehead, dry tongue, tumid, red lips, constant mental langour, much irritability of the system, some tendency to diarrhœa, and great prostration of strength; and as it advanced and assumed the continued form, there was a strong tendency to genuine typhus fever. In a few cases, the typhoid character of the disease was very distinct, and in all, there were tedious illness and protracted suffering. Three deaths occurred amongst the patients. The attendants and assistants all recovered. In one of the fatal cases, there was so much dryness of the throat and tongue, with sordes upon the teeth, that neither drinks nor medicines of any account could be given. The poor fellow could not swallow even a few drops of water, for several days before his death. The others who died were a long time ill, and wonderfully reduced in flesh.

"The principal causes of this epidemic were, undoubtedly, cold, or atmospheric vicissitudes."

There is some difference of opinion among those who have devoted their time to the interests of the insane, in regard to the comparative merits, as places of recreation and exercise, of open airing courts and verandahs, enclosed under the same roof as the asylum buildings. The opinion of Dr. Awl on this subject, is given in the following quotation:

"When the first edifice was erected, we followed the example of many old institutions, in providing court-yards with high fences for the use of the patients, that they might enjoy the benefit of exercise in the open air. But experience soon demonstrated the uselessness of this arrangement in a climate of so much variableness as ours, in which but few days occur in the year, when patients could safely be permitted to lie about upon the ground. A habit to which many lunatics incline, and which they almost always practice in these yards. In supplying their place, we followed the example of the State Hospital at Worcester, in Massachusetts, by erecting verandahs at the corners, for exercise and recreation, and we have never had the least reason to be dissatisfied with the change. The verandahs are always ready, in all seasons, and in all kinds of weather; and are more cheerful, and less forbidding than court-yards. They are also dry, neat, and clean, so that patients can follow out their inclinations in comfort without expense."

12. At Kentucky Lunatic Asylum, at the commencement of the year 1846,

| | Males. | Females. | Total. |
|---|---|---|---|
| The number of patients was | 125 | 87 | 212 |
| Admitted during the year | 57 | 33 | 90 |
| Whole number | 182 | 120 | 302 |
| Discharged during the year | | | 77 |
| Remaining | 129 | 96 | 225 |
| Of those discharged there recovered | | | 32 |
| " " died | | | 27 |

*Causes of Death.*—Epilepsy, 11; Consumption, 8; Old Age, 4; Chronic disease of liver, 1; Enteritis, 2.

There is but little interesting matter, in a general medical point of view, contained in the report of Dr. Allen. This is not the Doctor's fault, but is readily accounted for by the following extracts.

"The failure of our efforts to get into the Asylum recent cases of the disease, will appear, when it is observed, that of ninety committed during the year, only twelve have been such, while the remainder, exclusive of idiots and epileptics, will average a duration of disease of four years. As directly bearing on this point too, we may here remark, that of the twelve recent cases, ten have recovered, and of the old, only ten of the seventy-eight admitted this year."

"We have thought it necessary in this, as in former reports, to attempt to enter into statistical detail, in laying before you a report of our Asylum. So limited and so little to be relied on, is the information we have been able to gather, in a very large majority of instances, as scarcely to be worth recording; and so few are the cases which have come under our observation, of which accurate histories are obtained, that no general principle, in relation to the malady, can be illustrated by them. Since, therefore, nothing is to be gained important to the particular economy of this institution, or the cause of science, we forbear to incumber this report with more than appears essential to give a general view of its progress.

13. The following extract, from the second annual report of the commissioners of the Indiana Hospital for the Insane, exhibits the condition of that institution at the close of October, 1846.

Immediately upon the passage of the law last winter, authorizing and directing the commissioners to erect a Hospital building, in accordance with the general plan recommended to the favourable consideration of the Legislature in their last year's report, they took active steps to carry it into effect. They have the pleasure of announcing to the present General Assembly, that the building has been carried up to the top of the basement story, and finished in time to be secure from the liability of injury from freezing. The walls have been placed under cover, and everything is in readiness to prosecute them as early in the spring as the weather will admit.

"The first thing which claimed the consideration of the board under the law, was the appointment of a suitable superintendent. Being sensible of the great importance of having this position well filled, it seemed to them, for many reasons, peculiarly proper that that position should be tendered to Dr. J. Evans, of this city, (Richmond.) He had been the first to press the duty of making provision for the insane of this State, upon the attention of the Legislature; and from his general character, professional standing, and the attention which he was believed to have devoted to the subject, it was inferred that he was well qualified for the discharge of its responsible duties. After several months of active operations in prosecuting the work, the board take pleasure in testifying to the careful, prudent, and economical manner in which Dr. Evans has discharged these duties."

All the institutions, the reports of which are here noticed, are in a flourishing condition. They are mostly filled with patients to the extent of their accommodations. Nearly all of them recently have been, or are about to be enlarged.

The Rhode Island and the New Jersey State Asylums are nearly completed, and will probably be opened the ensuing autumn. P. E.

ART. XVII.—*An Analysis of Physiology: being a condensed view of its most important facts and doctrines. Designed especially for the use of Students.* By JOHN J. REESE, M. D., Lecturer on Materia Medica in the Medical Institute of Philadelphia, Fellow of the College of Physicians, Secretary of the Philadelphia Medical Society. 12mo. pp. 314. Philadelphia, 1847, J. G. Auner.

WE confess that we are no great friends to manuals, outlines, digests, and analyses, nor, indeed, to any of the other short cuts to a knowledge of any of the branches comprised in a complete course of Medical Studies. They are apt to give superficial if not inaccurate views of the present condition of the subjects of which they treat, and to prevent that proper distinction being made between well established facts and conclusions, and statements which require still further elucidation and confirmation. They are, also, apt to substitute a mere recollection of established facts, for that intimate acquaintance with the subject which results from its systematic study throughout its history and most minute details. Whatever may be the objections urged against works of the class alluded to, they will, nevertheless, be sought after by the student, and if not supplied by those who are fully competent to the task of preparing them, they will be by others less qualified. As an introduction to the study of any given branch, a manual presenting an accurate, but "condensed view of its most important facts and doctrines," may not be without its value, but the difficulty is to confine its use to the young student—to induce him to give it up sufficiently soon for the less attractive pages of the systematic treatise, with its detail of experiments and observations—its cautious weighing of each fact—its careful testing of the legitimacy and validity of every deduction, and the slow measured pace with which it arrives at truth.

If at any time, a manual can become useful, as we have supposed it may, it must be just such a one as that before us—which, with all its conciseness, is clear and accurate—and presents certainly a very fair and distinct outline of the physiological facts and opinions, which are, at present, received as well established—as well as of those which, if not fully verified, are considered to bear the impress of truth. We have indeed, been much pleased, in perusing the analysis of Dr. Reese, with the skilful manner in which his task has been accomplished. From the pages of the work before us, a very good general idea of physiology may, in fact, be obtained. It may be of service to those who are commencing the study of that branch of science, as well as a convenient remembrancer or review of what they have already learned, to those who are about to undergo an examination. In this light alone it may be recommended as one of the best with which we are acquainted.

D. F. C.

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Art. XVIII.—*Observations on Aneurism and its Treatment by Compression.* By Dr. O'Bryen Bellingham, M. D., Edin., one of the Surgeons to St. Vincent's Hospital, &c. Dublin, 1847. 12mo. pp. 181.

Too much praise cannot, we think, be awarded to the Dublin surgeons for the reintroduction of the treatment by compression for the cure of aneurism, and of this praise, no mean share belongs to Mr. Bellingham. The true theory upon which compression effects the cure, was several years since advanced by him, and in the present volume pathological evidence is adduced to show its correctness. In addition to this, it contains a concise sketch of the history of the treatment of aneurism by compression from the earliest period to its present improved state, together with a description of the various instruments which have been employed for this purpose, the advantages which compression possesses over the ligature, with rules for the guidance of the surgeon in its application, and an abstract of every case known to the author in which this treatment has been used. The principle established by Mr. Bellingham is, that for the cure of aneurism by compression above the sac, an absolute interruption to the circulation through the vessel is not necessary, the process being identical to that by which nature sometimes effects a spontaneous cure; viz., the gradual deposition of the fibrine of the blood in the sac, until it is completely filled up and no longer permits the entrance of that fluid. The practical deduction from this is, that the pressure need not be so great as entirely to interrupt the circulation at the point compressed, and that our object should be simply to diminish the current and thus favour the deposit.

In using compression, Mr. Bellingham prefers making it by means of two instruments applied upon different parts of the limb, which are to be alternately tightened and relaxed, as by so doing the patient is enabled to bear it better and longer than would be possible under other circumstances.

As to the instruments used for applying the pressure, he observes that their shape and construction are matters of less importance than is generally imagined. The essential points in an instrument for compression are, that it should admit of being readily applied; that its principle should be so simple as to be easily understood by the patient; and that it should affect the object intended with as little inconvenience as possible. A broad soft pad will, Mr. B. thinks, generally be found to answer best, and the counter pressure ought to be distributed over as large a surface as possible. As to the sites at which the pressure may be applied on the lower limb, either the point where the artery crosses the horizontal ramus of the pubis; between Poupart's ligament and the point at which the saphena joins the femoral vein; from the middle third of the thigh down to the opening through which the artery passes to the back of the limb, are any of them eligible situations for it. Pressure upon the femoral vein he has never known attended with ill consequences. In regard to the degree of compression, it at first ought always to be light; after a time when tolerance is established, we may increase it to the degree we consider necessary; but as before observed, it need never be so great as to interrupt completely the circulation in the artery at the point upon which it is applied.

If at any time, a manual can become useful, as we have supposed it may, it must be just such a one as that before us—which, with all its conciseness, is clear and accurate—and presents certainly a very fair and distinct outline of the physiological facts and opinions, which are, at present, received as well established—as well as of those which, if not fully verified, are considered to bear the impress of truth. We have indeed, been much pleased, in perusing the analysis of Dr. Reese, with the skilful manner in which his task has been accomplished. From the pages of the work before us, a very good general idea of physiology may, in fact, be obtained. It may be of service to those who are commencing the study of that branch of science, as well as a convenient remembrancer or review of what they have already learned, to those who are about to undergo an examination. In this light alone it may be recommended as one of the best with which we are acquainted.

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The subjoined summary which we have drawn out from Mr. B.'s abstract, shows the reported cases of femoral and popliteal aneurisms which have been treated by pressure since 1843.

| No. | Age. | Surgeon. | Seat of Aneurism. | Duration of Compression. | Result. |
|---|---|---|---|---|---|
| 1 | 30 | Hutton | Popliteal | 28 days | Cured |
| 2 | 55 | Cusack | " | 31 days | Cured |
| 3 | 32 | Bellingham | " | 2 days | Cured |
| 4 | 30 | Liston | Femoral | 56 days | Cured |
| 5 | 29 | Harrison | Popliteal | 93 days | Cured |
| 6 | 53 | Liston | Femoral | 30 days | Cured |
| 7 | 33 | Bellingham | " | 43 days | Cured |
| 8 | 28 | Kirby | Popliteal | 53 days | Cured |
| 9 | 32 | Allen | " | 57 days | Cured |
| 10 | 27 | Greatrick | " | 21 days | Cured |
| 11 | 26 | Cusack | " | 7 days | Cured |
| 12 | 29 | Porter | " | 21 days | Cured |
| 13 | 30 | Cusack | " | "about 20 days" | Died suddenly from disease of heart 48 hours after pressure had been removed. All pulsation had ceased. |
| 14 | | Porter | " | 20 days, but continued under treatment for 28 days afterwards | |
| 15 | 32 | O'Ferral | " | 33 days | Cured |
| 16 | 38 | Jolley | " | 40 days | Cured |
| 17 | | Macdonnell | " | | Cured |
| 18 | 38 | Dartnell | " | 7 days | Cured |
| 19 | 30 | Mackern | Femoral | 36 days | Cured |
| 20 | 32 | Stork | Popliteal | 91 days | Cured |
| 21 | 24 | Stork | " | 22 days | Cured |
| 22 | 23 | Cusack | " | 43 days | Cured |
| 23 | 43 | Sunter | " | several days | Cured |
| 24 | 38 | Bellingham | " | Pulsation continuing some time after compression a galvanic current was passed through the sac. Seven days after which he was seized with shivering and erysipelas and died 6 days afterwards. | Cured |
| 25 | | St. Vincent's Hospital | " | | |
| 26 | 27 | Armstrong | " | 106 days | Cured |
| 27 | 42 | Harrison | " | Kept up for a fortnight, when the operation was performed at the request of the patient. | Cured |

Mr. Bellingham's little work is well worthy of attentive perusal, and we feel a confident hope that henceforth another formidable operation, as ligature of the femoral vessel, even under favourable circumstances unquestionably is, may in a great majority of instances be avoided. In this country external aneurisms are not common, and we are aware as yet of no instance in which the treatment by pressure has of late years been used.

G. W. N.

ART. XIX.—*A Treatise on the Diseases of the Eye.*—By W. LAWRENCE, F. R. S., Surgeon Extraordinary to the Queen, Surgeon to St. Bartholomew's Hospital, &c. &c. A New Edition, with many Modifications and Additions, and the introduction of nearly two hundred illustrations. By ISAAC HAYS, M. D., Surgeon to Wills' Hospital, Physician to the Philadelphia Orphan Asylum, &c. &c. Philadelphia, Lea and Blanchard, 8vo. pp. 900.

THE issue of a second edition of Dr. Lawrence's very excellent treatise on the Diseases of the Eye, with additions and illustrations by Isaac Hays, M. D., is a satisfactory evidence of the high estimation in which the work is held by the medical profession in this country, and may we not hope that this, with the other good works on Ophthalmic Surgery, now so readily to be obtained, will have the effect of inculcating correct principles in the diagnosis and treatment of so important a class of diseases, and about which there is still such lamentable ignorance.

For obvious reasons, it would not be proper for us in this journal to express our estimate of the value of the additions made by the editor, but we may state that they are numerous, that the illustrations so useful to the student, have been considerably augmented, and that the whole work is got up by the enterprising publishers in a superior manner. G. F.

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ART. XX. *Proceedings of the National Medical Conventions held in New York*, May, 1846, *and in Philadelphia* May, 1847. Philadelphia: printed for the American Medical Association, 1847. 8vo. pp. 175.

WE are enabled by an accident, which prevented this form from being put to press in its regular order, to announce the publication of this interesting volume. We need scarcely commend it to the careful consideration of every medical man in the United States, for all must feel a deep interest in the great movement which has been commenced to elevate the dignity and character, and to extend the usefulness of our noble profession. This volume contains the minutes of the proceedings of the Conventions held last year in New York, and the present one in Philadelphia, with the reports of the several committees presented to the latter body. These reports are, 1st, of the Committee on the Organization of the National Medical Association; 2d, of the Committee on a Uniform and Elevated Standard of Requirements for the Degree of M. D.; 3d, of the Committee on Preliminary Education to be required of Medical Students; 4th, of the Committee to Prepare a Code of Medical Ethics for the government of the profession throughout the United States; 5th, of the Committee on the Separation of Licensing and Teaching; 6th, of the Committee to consider the Expediency, and (if expedient) the Mode of Recommending and Urging upon the several State governments the adoption of measures for a Registration of the Births, Marriages, and Deaths of their several populations; and last, of the Committee appointed "to prepare a Nomenclature of Diseases adapted to the United States, having reference to a General Registration of Deaths."

We have not the space at present, but may take a future opportunity to review these reports.

The ball of reform has now been set in motion, and with an impetus which will defy all opposition to arrest its onward progress.